Old Colony Planning Council

Robert G. Moran, Jr. President

70 School Street Brockton, MA 02301-4097



Pasquale Ciaramella Executive Director

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September 7, 2010

Chairman William Hallisey, Jr. Plymouth Board of Selectmen 11 Lincoln Street Plymouth, MA. 02360

Dear Chairman Hallisey,

Please find enclosed data and analysis completed for assessment of conditions along Federal Furnace Road, particularly in the designated school zone for the Federal Furnace Elementary School. This data was collected in May of 2010, while school was in session. Table 1 summarizes the average daily weekday traffic within the school zone, while Table 2 summarizes the data at the same location for the hours when the school zone was active, with flashing lights and illuminated 20 MPH signs, on Wednesday, May 27th, 2010.

Table 1: Summary of Average Daily Weekday Traffic, Federal Furnace Road at

Federal Furnace Elementary School Zone

	Average Weekday	% Heavy	Posted	85th Percentile	10 MPH	% Drivers
	Daily Traffic	Vehicles	Speed Limit	Speed	Pace Speed	Over Speed Limit
Northbound	3,902	6.2%	30 MPH	44 MPH	36 - 45 MPH	89.2%
Southbound	3,722	8.6%	30 MPH	45 MPH	36 - 45 MPH	87.6%
Combined	7,624	7.4%	30 MPH	45 MPH	36 - 45 MPH	88.4%

Based on the recorded traffic data, drivers speeding within the school zone is common and excessive during active and non-active hours of the school zone alike. Over a 24 hour weekday period, the 85th percentile speed of traffic averages 15 miles per hour above the posted speed limit of 30 miles per hour; while during active school zone hours the 85th percentile speed of traffic ranges between 20 to 24 miles per hour above the school zone speed limit of 20 miles per hour. Vehicle travel speeds at these recorded levels pose an imminent hazard to persons, particularly school aged children, commuting to and from the school. At 40 miles per hour, a driver needs 305 feet (stopping sight distance) to react and break to a complete stop. At 45 miles per hour, the required stopping sight distance is 360 feet.

Table 2: Summary of Traffic Within Active School Zone

Tubic 21 Summur	<i>J</i>	Average	Posted	85th Percentile	10 MPH	% Drivers
Time Frame	Direction	Volume	Speed Limit	Speed	Pace Speed	Over Speed Limit
	Northbound	386	20 MPH	42 MPH	31 - 40 MPH	97.7%
School Start	Southbound	297	20 MPH	40 MPH	31 - 40 MPH	94.9%
8:15 - 9:15 AM	Combined	683	20 MPH	41 MPH	31 - 40 MPH	96.5%
		Average	Posted	85th Percentile	10 MPH	% Drivers
	Direction	Volume	Speed Limit	Speed	Pace Speed	Over Speed Limit
Midday	Northbound	475	20 MPH	42 MPH	31 - 40 MPH	98.1%
Kindergarten	Southbound	393	20 MPH	44 MPH	36 - 45 MPH	96.4%
11:15 AM - 1:15 PM	Combined	868	20 MPH	43 MPH	33 - 42 MPH	97.4%
******		Average	Posted	85th Percentile	10 MPH	% Drivers
	Direction	Volume	Speed Limit	Speed	Pace Speed	Over Speed Limit
	Northbound	372	20 MPH	41 MPH	31 - 40 MPH	95.4%
Dismissal	Southbound	392	20 MPH	42 MPH	31 - 40 MPH	93.9%
3:00-4:00	Combined	764	20 MPH	42 MPH	31 - 40 MPH	94.6%

Regular and strict speed enforcement along Federal Furnace Road, particularly during active school zone hours, should be a central focus on the effort to reduce travel speeds and increase safety along the roadway. Additionally, enhancement of the existing school zone with additional signage and pavement markings should be considered by the Town. Examples of such signage are illustrated in Figures 1, 2, and 3; and a complete Traffic Control For School Areas chapter from Manual On Uniform Traffic Control Devices (MUTCD) 2009 Edition is enclosed. Furthermore, Section 7G, Official Standards For School Zones, from the Massachusetts Amendment to the Manual On Uniform Traffic Control Devices is enclosed.



Figure 1 – In-Crosswalk Signage



Figure 2 – School Zone and Reduced Speed Ahead



Figure 3 – Higher Fines Zone, as supplement to placard to school zone signs, and when legislation allows

Federal Furnace Elementary School should continue to remain an active participant in the Safe Routes To School Program. Educating students on roadway safety, and safe walking and bicycling habits are an important component to increasing safety both around the school area as well as other areas where the children live and play. Encouragement of a healthy and active lifestyle through campaigns and group activities is another component of the Safe Routes To School Program, as is strict enforcement of traffic laws around the school. Active Safe Routes To School partner schools are eligible for an engineering

evaluation and potential funding of infrastructure improvements within a 2 mile radius of the school.

Finally, the construction of sidewalks and adequate shoulders along Federal Furnace Road should be included in any future improvements and development along the roadway. With residential and commercial growth in southeastern Massachusetts, Federal Furnace Road has become a significant regional transportation link between western Plymouth and Routes 3 and 44 to the north, and Routes 58 and Interstate 495 to the south. With this increase in development and increase in traffic volumes, providing safe and adequate buffers between vehicular traffic, and pedestrians and cyclists.

Should you have any questions regarding this analysis or require further assistance, please contact Bill McNulty at wmcnulty@ocpcrpa.org or at (508) 583-1833 x207.

Sincerely,

Charles Kilmer

Transportation Program Manager

Cc:

Senate President Therese Murray, Commonwealth of Massachusetts State Representative Vinny deMacedo, Commonwealth of Massachusetts Mr. Sid Kashi P.E., MPS, Plymouth Department of Engineering

Chief Michael Botieri, Plymouth Police Department

Mr. Hector Castro, Director, Plymouth Department of Public Works

Ms. Trina Camarao, Principal, Federal Furnace Elementary School

Mr. Lee Hartmann, AICP, Director of Planning and Development, Plymouth

Dr. Gary E. Maestas, Ed.D, Superintendent, Plymouth Public Schools

Ms. Pamela Haznar, Project Development Engineer, MassDOT District 5

Mr. Paul Maloney, P.E., Transportation Planning Engineer, FHWA

Mr. Trey Wadsworth, MassDOT Office of Transportation Planning

Enclosures:

ATR (Volume, Speed, and Classification) Data for Federal Furnace Road

Within School Zone

Within School Zone, Active Zone Hours, Wednesday, May 27th, 2010

At Carver Town Line

South of Black Cat Road

BayState Roads Tech Notes - Stopping Sight Distance

MUTCD 2009 - Traffic Controls For School Areas

Massachusetts Amendments to the MUTCD, Section 7G - Official Standards For School Zones

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

Start	24-May	·-10	Tu	ie	V	Ved	-	Γhu	F	ri	S	at	Sui	า	Week A	verage
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	ŇB
12:00 AM	*	*	*	*	35	17	33	14	*	*	*	*	*	*	34	16
01:00	*	*	*	*	19	5	26	10	*	*	*	*	*	*	22	8
02:00	*	*	*	*	11	7	10	8	*	*	*	*	*	*	10	8
03:00	*	*	*	*	8	10	11	6	*	*	*	*	*	*	10	8
04:00	*	*	*	*	11	17	10	23	*	*	*	*	*	*	10	20
05:00	*	*	*	*	55	86	41	93	*	*	*	*	*	*	48	90
06:00	*	*	*	*	112	261	110	247	*	*	*	*	*	*	111	254
07:00	*	*	*	*	194	344	192	359	*	*	*	*	*	*	193	352
08:00	*	*	*	*	246	327	274	348	*	*	*	*	*	*	260	338
09:00	*	*	*	*	169	278	184	248	*	*	*	*	*	*	176	263
10:00	*	*	*	*	161	215	173	215	*	*	*	*	*	*	167	215
11:00	*	*	*	*	176	198	182	203	*	*	*	*	*	*	179	200
12:00 PM	*	*	*	*	189	193	172	215	*	*	*	*	*	*	180	204
01:00	*	*	*	*	165	218	188	208	*	*	*	*	*	*	176	213
02:00	*	*	*	*	221	231	226	259	*	*	*	*	*	*	224	245
03:00	*	*	*	*	367	314	309	306	*	*	*	*	*	*	338	310
04:00	*	*	*	*	409	331	360	240	*	*	*	*	*	*	384	286
05:00	*	*	*	*	331	260	361	289	*	*	*	*	*	*	346	274
06:00	*	*	*	*	235	193	269	234	*	*	*	*	*	*	252	214
07:00	*	*	*	*	164	123	198	144	*	*	*	*	*	*	181	134
08:00	*	*	*	*	148	101	147	95	*	*	*	*	*	*	148	98
09:00	*	*	*	*	123	68	131	67	*	*	*	*	*	*	127	68
10:00	*	*	*	*	89	51	79	50	*	*	*	*	*	*	84	50
11:00	*	*	*	*	60	34	65	33	*	*	*	*	*	*	62	34
Total	0	0	0	0	3698	3882	3751	3914	0	0	0	0	0	0	3722	3902
Day	0		0		75	80	76	65	0		0		0		7624	
AM Peak					08:00	07:00	08:00	07:00							08:00	07:00
Vol.					246	344	274	359							260	352
PM Peak					16:00	16:00	17:00	15:00							16:00	15:00
Vol.					409	331	361	306							384	310

Comb. Total 0 0 7580 7665 0 0 0 7624

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Station ID:
Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

Start Time	24-May-10 Mon	25-May-10 Tue	26-May-10 Wed	27-May-10 Thu	28-May-10 Fri	29-May-10 Sat	30-May-10 Sun	Week Average
12:00 AM	*	*	52	47	*	Sat*	*	50
01:00	*	*	24	36	*	*	*	30
02:00	*	*	18	18	*	*	*	18
03:00	*	*	18	17	*	*	*	18
04:00	*	*	28	33	*	*	*	30
05:00	*	*	141	134	*	*	*	138
06:00	*	*	373	357	*	*	*	365
07:00	*	*	538	551	*	*	*	544
08:00	*	*	573	622	*	*	*	598
09:00	*	*	447	432	*	*	*	440
10:00	*	*	376	388	*	*	*	382
11:00	*	*	374	385	*	*	*	380
12:00 PM	*	*	382	387	*	*	*	384
01:00	*	*	383	396	*	*	*	390
02:00	*	*	452	485	*	*	*	468
03:00	*	*	681	615	*	*	*	648
04:00	*	*	740	600	*	*	*	670
05:00	*	*	591	650	*	*	*	620
06:00	*	*	428	503	*	*	*	466
07:00	*	*	287	342	*	*	*	314
08:00	*	*	249	242	*	*	*	246
09:00	*	*	191	198	*	*	*	194
10:00	*	*	140	129	*	*	*	134
11:00	*	*	94	98	*	*	*	96
Total	0	0	7580	7665	0	0	0	7623
Percentage	0.0%	0.0%	99.4%	100.6%	0.0%	0.0%	0.0%	
AM Peak			08:00	08:00				08:00
Vol.			573	622				598
PM Peak			16:00	17:00				16:00
Vol.			740	650				670

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

SB

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Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	1	0	0	6	12	7	8	0	0	0	0	1	35
01:00	0	0	0	0	3	2	9	3	1	1	0	0	0	0	19
02:00	0	0	0	0	1	2	4	2	2	0	0	0	0	0	11
03:00	0	0	0	0	0	4	3	1	0	0	0	0	0	0	8
04:00	0	0	0	0	1	0	2	8	0	0	0	0	0	0	11
05:00	1	0	0	0	1	4	20	16	9	4	0	0	0	0	55
06:00	2	0	0	3	4	19	43	31	8	2	0	0	0	0	112
07:00	4	1	1	6	32	54	64	25	5	2	0	0	0	0	194
08:00	9	15	24	42	62	53	35	5	0	1	0	0	0	0	246
09:00	3	1	10	20	53	51	27	4	0	0	0	0	0	0	169
10:00	15	3	7	9	24	51	43	9	0	0	0	0	0	0	161
11:00	5	1	5	24	32	53	46	10	0	0	0	0	0	0	176
12 PM	0	1	15	32	49	67	19	5	1	0	0	0	0	0	189
13:00	4	0	0	10	25	53	52	15	5	1	0	0	0	0	165
14:00	3	0	2	11	26	80	73	22	4	0	0	0	0	0	221
15:00	22	7	48	48	84	104	46	8	0	0	0	0	0	0	367
16:00	11	5	6	11	58	136	148	30	4	0	0	0	0	0	409
17:00	6	0	2	9	27	67	157	60	2	1	0	0	0	0	331
18:00	1	0	0	1	16	62	103	43	7	1	0	0	1	0	235
19:00	0	0	0	3	6	51	56	38	10	0	0	0	0	0	164
20:00	1	0	0	1	17	51	57	16	5	0	0	0	0	0	148
21:00	0	0	2	7	20	38	32	19	4	1	0	0	0	0	123
22:00	1	1	3	5	11	23	33	7	4	1	0	0	0	0	89
23:00	0	0	0	0	6	15	20	15	2	1	1	0	0	0	60
Total	88	35	126	242	558	1046	1104	399	81	16	1	0	1	1	3698

Daily

15th Percentile : 31 MPH 50th Percentile : 39 MPH 85th Percentile : 45 MPH 95th Percentile : 49 MPH Speed(Average) : 38 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2150

 Percent in Pace:
 58.1%

 Number of Vehicles > 30 MPH:
 3207

 Percent of Vehicles > 30 MPH:
 86.7%

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Station ID:
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Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	5	11	9	5	3	0	0	0	0	0	33
01:00	0	0	0	0	3	3	9	8	1	2	0	0	0	0	26
02:00	0	0	0	0	1	2	3	3	1	0	0	0	0	0	10
03:00	0	0	0	0	1	4	2	3	1	0	0	0	0	0	11
04:00	0	0	0	0	0	0	2	3	4	0	0	0	0	1	10
05:00	0	0	0	0	1	3	18	12	6	1	0	0	0	0	41
06:00	2	0	0	3	7	20	43	26	9	0	0	0	0	0	110
07:00	6	0	0	3	11	69	73	23	5	2	0	0	0	0	192
08:00	7	6	24	43	80	62	38	12	2	0	0	0	0	0	274
09:00	5	0	8	12	41	69	38	9	1	1	0	0	0	0	184
10:00	3	1	1	6	34	78	45	4	1	0	0	0	0	0	173
11:00	1	3	5	11	32	59	61	10	0	0	0	0	0	0	182
12 PM	6	3	9	28	38	42	37	8	1	0	0	0	0	0	172
13:00	3	4	1	8	39	65	55	9	3	1	0	0	0	0	188
14:00	8	0	0	8	22	59	72	44	13	0	0	0	0	0	226
15:00	14	8	16	54	73	80	46	18	0	0	0	0	0	0	309
16:00	5	1	0	16	41	103	148	43	2	0	0	1	0	0	360
17:00	23	1	6	17	44	113	114	41	2	0	0	0	0	0	361
18:00	5	0	1	14	44	86	92	26	1	0	0	0	0	0	269
19:00	5	0	1	9	13	52	80	31	7	0	0	0	0	0	198
20:00	2	0	0	0	11	44	67	17	6	0	0	0	0	0	147
21:00	2	0	0	2	11	43	51	18	4	0	0	0	0	0	131
22:00	1	0	0	0	9	17	34	13	4	0	0	1	0	0	79
23:00	0	0	2	0	1	21	26	11	3	1	0	0	0	0	65
Total	98	27	74	234	562	1105	1163	397	80	8	0	2	0	1	3751

Daily

 15th Percentile:
 32 MPH

 50th Percentile:
 39 MPH

 85th Percentile:
 45 MPH

 95th Percentile:
 49 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2268

 Percent in Pace:
 60.5%

 Number of Vehicles > 30 MPH:
 3318

 Percent of Vehicles > 30 MPH:
 88.5%

Grand 186 62 200 476 1120 2151 2267 796 161 24 1 2 1 2 7449

Overall

 15th Percentile :
 31 MPH

 50th Percentile :
 39 MPH

 85th Percentile :
 45 MPH

 95th Percentile :
 49 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4418

 Percent in Pace:
 59.3%

 Number of Vehicles > 30 MPH:
 6525

 Percent of Vehicles > 30 MPH:
 87.6%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

NB

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	1	5	8	2	1	0	0	0	0	0	17
01:00	0	0	0	0	1	2	2	0	0	0	0	0	0	0	5
02:00	0	0	0	0	2	2	2	1	0	0	0	0	0	0	7
03:00	0	0	0	0	2	1	4	2	1	0	0	0	0	0	10
04:00	0	0	0	0	1	1	7	4	3	1	0	0	0	0	17
05:00	0	0	0	1	9	17	37	17	5	0	0	0	0	0	86
06:00	0	0	0	1	14	63	136	45	2	0	0	0	0	0	261
07:00	7	1	1	5	46	117	134	29	4	0	0	0	0	0	344
08:00	17	0	10	61	100	99	34	6	0	0	0	0	0	0	327
09:00	8	0	3	43	78	99	39	8	0	0	0	0	0	0	278
10:00	8	1	1	17	47	69	67	4	1	0	0	0	0	0	215
11:00	9	0	3	18	46	76	43	3	0	0	0	0	0	0	198
12 PM	5	0	6	41	49	65	21	5	1	0	0	0	0	0	193
13:00	6	0	0	18	45	77	59	13	0	0	0	0	0	0	218
14:00	2	0	1	7	23	82	94	22	0	0	0	0	0	0	231
15:00	19	0	7	57	95	98	30	7	1	0	0	0	0	0	314
16:00	11	0	0	21	77	117	97	6	1	1	0	0	0	0	331
17:00	10	0	0	3	25	83	102	33	4	0	0	0	0	0	260
18:00	2	0	1	3	32	72	68	14	1	0	0	0	0	0	193
19:00	1	0	1	3	24	38	38	15	2	0	0	1	0	0	123
20:00	3	0	0	3	16	39	33	6	1	0	0	0	0	0	101
21:00	0	0	0	10	10	27	16	5	0	0	0	0	0	0	68
22:00	0	0	2	2	10	18	11	8	0	0	0	0	0	0	51
23:00	0	0	0	11	7	11	14	1	0	0	0	0	0	0	34
Total	108	2	36	315	760	1278	1096	256	28	2	0	1	0	0	3882

Daily

 15th Percentile :
 31 MPH

 50th Percentile :
 38 MPH

 85th Percentile :
 44 MPH

 95th Percentile :
 47 MPH

 Speed(Average) :

 37 MPH

 Mean Speed(Average):
 37 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2374

 Percent in Pace:
 61.2%

 Number of Vehicles > 30 MPH:
 3421

 Percent of Vehicles > 30 MPH:
 88.1%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr Active School Zone

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Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	2	7	4	1	0	0	0	0	0	0	14
01:00	0	0	0	0	0	5	1	4	0	0	0	0	0	0	10
02:00	0	0	0	0	1	3	3	1	0	0	0	0	0	0	8
03:00	0	0	0	0	2	2	1	1	0	0	0	0	0	0	6
04:00	0	0	0	1	2	4	5	9	1	1	0	0	0	0	23
05:00	0	0	0	0	3	15	52	17	6	0	0	0	0	0	93
06:00	5	0	0	4	20	66	102	43	7	0	0	0	0	0	247
07:00	2	0	0	2	36	137	149	31	2	0	0	0	0	0	359
08:00	7	0	4	44	69	141	73	8	2	0	0	0	0	0	348
09:00	4	0	4	26	69	99	39	7	0	0	0	0	0	0	248
10:00	6	0	3	9	43	86	64	4	0	0	0	0	0	0	215
11:00	2	0	2	16	52	80	44	6	1	0	0	0	0	0	203
12 PM	6	0	1	30	62	75	39	2	0	0	0	0	0	0	215
13:00	4	0	2	14	38	73	63	14	0	0	0	0	0	0	208
14:00	9	1	1	4	30	103	87	21	3	0	0	0	0	0	259
15:00	13	0	1	68	111	65	42	6	0	0	0	0	0	0	306
16:00	12	0	0	5	37	74	85	27	0	0	0	0	0	0	240
17:00	16	0	0	5	45	92	98	32	1	0	0	0	0	0	289
18:00	8	0	2	16	46	88	68	6	0	0	0	0	0	0	234
19:00	6	0	1	11	22	56	38	7	2	1	0	0	0	0	144
20:00	1	0	0	1	16	34	31	10	2	0	0	0	0	0	95
21:00	0	0	0	1	13	26	21	5	1	0	0	0	0	0	67
22:00	1	0	0	2	14	12	15	6	0	0	0	0	0	0	50
23:00	0	0	0	0	5	10	10	7	0	1	0	0	0	0	33
Total	102	1	21	259	738	1353	1134	275	28	3	0	0	0	0	3914

Daily

 15th Percentile:
 32 MPH

 50th Percentile:
 39 MPH

 85th Percentile:
 44 MPH

 95th Percentile:
 47 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2487

 Percent in Pace:
 63.5%

 Number of Vehicles > 30 MPH:
 3531

 Percent of Vehicles > 30 MPH:
 90.2%

Grand 210 3 57 1498 2631 2230 531 574 56 5 0 1 0 0 7796

Overall

 15th Percentile:
 32 MPH

 50th Percentile:
 38 MPH

 85th Percentile:
 44 MPH

 95th Percentile:
 47 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4861

 Percent in Pace:
 62.4%

 Number of Vehicles > 30 MPH:
 6952

 Percent of Vehicles > 30 MPH:
 89.2%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

SB. NB

00, 110															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	1	0	1	11	20	9	9	0	0	0	0	1	52
01:00	0	0	0	0	4	4	11	3	1	1	0	0	0	0	24
02:00	0	0	0	0	3	4	6	3	2	0	0	0	0	0	18
03:00	0	0	0	0	2	5	7	3	1	0	0	0	0	0	18
04:00	0	0	0	0	2	1	9	12	3	1	0	0	0	0	28
05:00	1	0	0	1	10	21	57	33	14	4	0	0	0	0	141
06:00	2	0	0	4	18	82	179	76	10	2	0	0	0	0	373
07:00	11	2	2	11	78	171	198	54	9	2	0	0	0	0	538
08:00	26	15	34	103	162	152	69	11	0	1	0	0	0	0	573
09:00	11	1	13	63	131	150	66	12	0	0	0	0	0	0	447
10:00	23	4	8	26	71	120	110	13	1	0	0	0	0	0	376
11:00	14	1	8	42	78	129	89	13	0	0	0	0	0	0	374
12 PM	5	1	21	73	98	132	40	10	2	0	0	0	0	0	382
13:00	10	0	0	28	70	130	111	28	5	1	0	0	0	0	383
14:00	5	0	3	18	49	162	167	44	4	0	0	0	0	0	452
15:00	41	7	55	105	179	202	76	15	1	0	0	0	0	0	681
16:00	22	5	6	32	135	253	245	36	5	1	0	0	0	0	740
17:00	16	0	2	12	52	150	259	93	6	1	0	0	0	0	591
18:00	3	0	1	4	48	134	171	57	8	1	0	0	1	0	428
19:00	1	0	1	6	30	89	94	53	12	0	0	1	0	0	287
20:00	4	0	0	4	33	90	90	22	6	0	0	0	0	0	249
21:00	0	0	2	17	30	65	48	24	4	1	0	0	0	0	191
22:00	1	1	5	7	21	41	44	15	4	1	0	0	0	0	140
23:00	0	0	0	1	13	26	34	16	2	1	1	0	0	0	94
Total	196	37	162	557	1318	2324	2200	655	109	18	1	1	1	1	7580

Daily

 15th Percentile:
 31 MPH

 50th Percentile:
 39 MPH

 85th Percentile:
 45 MPH

 95th Percentile:
 49 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4524

 Percent in Pace:
 59.7%

 Number of Vehicles > 30 MPH:
 6628

 Percent of Vehicles > 30 MPH:
 87.4%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr Active School Zone

SB. NB

00, 110															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	7	18	13	6	3	0	0	0	0	0	47
01:00	0	0	0	0	3	8	10	12	1	2	0	0	0	0	36
02:00	0	0	0	0	2	5	6	4	1	0	0	0	0	0	18
03:00	0	0	0	0	3	6	3	4	1	0	0	0	0	0	17
04:00	0	0	0	1	2	4	7	12	5	1	0	0	0	1	33
05:00	0	0	0	0	4	18	70	29	12	1	0	0	0	0	134
06:00	7	0	0	7	27	86	145	69	16	0	0	0	0	0	357
07:00	8	0	0	5	47	206	222	54	7	2	0	0	0	0	551
08:00	14	6	28	87	149	203	111	20	4	0	0	0	0	0	622
09:00	9	0	12	38	110	168	77	16	1	1	0	0	0	0	432
10:00	9	1	4	15	77	164	109	8	1	0	0	0	0	0	388
11:00	3	3	7	27	84	139	105	16	1	0	0	0	0	0	385
12 PM	12	3	10	58	100	117	76	10	1	0	0	0	0	0	387
13:00	7	4	3	22	77	138	118	23	3	1	0	0	0	0	396
14:00	17	1	1	12	52	162	159	65	16	0	0	0	0	0	485
15:00	27	8	17	122	184	145	88	24	0	0	0	0	0	0	615
16:00	17	1	0	21	78	177	233	70	2	0	0	1	0	0	600
17:00	39	1	6	22	89	205	212	73	3	0	0	0	0	0	650
18:00	13	0	3	30	90	174	160	32	1	0	0	0	0	0	503
19:00	11	0	2	20	35	108	118	38	9	1	0	0	0	0	342
20:00	3	0	0	1	27	78	98	27	8	0	0	0	0	0	242
21:00	2	0	0	3	24	69	72	23	5	0	0	0	0	0	198
22:00	2	0	0	2	23	29	49	19	4	0	0	1	0	0	129
23:00	0	0	2	0	6	31	36	18	3	2	0	0	0	0	98
Total	200	28	95	493	1300	2458	2297	672	108	11	0	2	0	1	7665

Daily

 15th Percentile:
 32 MPH

 50th Percentile:
 39 MPH

 85th Percentile:
 45 MPH

 95th Percentile:
 49 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4755

 Percent in Pace:
 62.0%

 Number of Vehicles > 30 MPH:
 6849

 Percent of Vehicles > 30 MPH:
 89.4%

Grand 396 65 257 1050 2618 4782 4497 1327 217 29 1 3 1 15245 Total

Overall

 15th Percentile :
 31 MPH

 50th Percentile :
 39 MPH

 85th Percentile :
 45 MPH

 95th Percentile :
 49 MPH

 Mean Speed(Average):
 38 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 9279

 Percent in Pace:
 60.9%

 Number of Vehicles > 30 MPH:
 13477

 Percent of Vehicles > 30 MPH:
 88.4%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

Active School Zone

SB

<u>50</u>															
Start	Diless	Cars &	2 Axle	D	2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 AxI	T-1-1	Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	2	24	7	0	2	0	0	0	0	0	0	0	0	35	2
01:00	1	15	2	0	1	0	0	0	0	0	0	0	0	19	1
02:00	0	8	2	0	0	0	0	0	1	0	0	0	0	11	1
03:00	0	7	0	1	0	0	0	0	0	0	0	0	0	8	1
04:00	0	7	1	0	3	0	0	0	0	0	0	0	0	11	3
05:00	0	25	16	1	10	1	0	0	2	0	0	0	0	55	14
06:00	0	61	27	2	13	0	0	6	2	0	0	0	0	111	23
07:00	2	136	40	1	12	3	0	0	0	0	0	0	0	194	16
08:00	0	154	55	9	15	4	0	6	2	0	0	0	0	245	36
09:00	0	100	53	4	8	1	0	1	2	0	0	0	0	169	16
10:00	1	102	37	0	12	5	0	2	1	0	0	0	0	160	20
11:00	1	116	44	1	11	2	0	0	1	0	0	0	0	176	15
12 PM	1	123	48	0	5	6	0	4	2	0	0	0	0	189	17
13:00	7	103	34	2	13	3	0	1	2	0	0	0	0	165	21
14:00	0	144	60	2	10	3	0	1	1	0	0	0	0	221	17
15:00	6	244	88	11	12	2	1	1	2	0	0	0	0	367	29
16:00	8	280	91	1	24	1	0	2	1	0	0	0	0	408	29
17:00	5	241	66	0	15	1	0	2	0	0	0	0	Ö	330	18
18:00	5	181	35	0	14	0	0	0	0	0	0	0	Ö	235	14
19:00	4	125	30	0	5	0	0	0	0	0	0	0	0	164	5
20:00	4	115	24	0	5	0	0	0	0	0	0	0	0	148	5
21:00	2	88	31	1	1	0	0	0	0	0	0	0	0	123	2
22:00	0	70	14	0	4	0	0	1	0	0	0	0	0	89	5
23:00	2	45	9	0	4	0	0	0	0	0	0	0	0	60	4
Total	51	2514	814	36	199	32	1	27	19	0	0	0	0	3693	314
Percent	1.4%	68.1%	22.0%	1.0%	5.4%	0.9%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%		8.5%
AM Peak	00:00	08:00	08:00	08:00	08:00	10:00		06:00	05:00					08:00	08:00
Vol.	2	154	55	9	15	5		6	2					245	36
PM Peak	16:00	16:00	16:00	15:00	16:00	12:00	15:00	12:00	12:00					16:00	15:00
Vol.	8	280	91	11	24	6	1	4	2					408	29

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Percent

1.1%

68.0%

22.3%

1.1%

5.4%

0.9%

0.0%

0.6%

0.6%

0.0%

0.0%

0.0%

0.0%

8.6%

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr

SB											. 00		Α	ctive Sch	ool Zone
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
5/27/10	1	22	<u> </u>	0	2	Olligie 0	0	0	0	0	0	0	0	33	
01:00	1	20	4	0	1	0	0	0	0	0	0	0	0	26	1
02:00	0	8	1	Ö	<u>i</u>	0	0	0	0	Ö	0	0	Ö	10	1
03:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11	0
04:00	0	4	2	0	4	0	0	0	0	0	0	0	0	10	4
05:00	0	20	10	2	8	0	0	0	1	0	0	0	0	41	11
06:00	0	70	22	2	9	2	0	3	2	0	0	0	0	110	18
07:00	1	133	40	1	8	2	0	2	4	0	0	0	0	191	17
08:00	2	173	61	9	19	4	0	1	4	0	0	0	0	273	37
09:00	0	113	56	1	6	4	0	1	3	0	0	0	0	184	15
10:00	0	110	38	3	16	1	1	1	2	1	0	0	0	173	25
11:00	10	105	41	7	12	4	0	1	1	0	0	0	0	181	25
12 PM	0	101	50	3	9	6	0	1	1	0	0	0	0	171	20
13:00	0	113	54	1	13	4	0	1	1	0	Ő	0	Ö	187	20
14:00	2	140	64	3	14	1	0	1	1	0	0	0	0	226	20
15:00	2	220	62	9	13	1	0	1	1	0	0	0	0	309	25
16:00	1	267	70	1	17	2	0	2	0	0	0	0	0	360	22
17:00	2	262	75	1	17	1	0	2	1	0	0	0	0	361	22
18:00	4	194	59	0	9	2	0	1	0	0	0	0	0	269	12
19:00	1	139	49	0	9	0	0	0	0	0	0	0	0	198	9
20:00	0	105	30	0	9	1	0	1	0	0	0	0	0	146	11
21:00	2	105	20	0	3	0	0	0	0	0	0	0	0	130	3
22:00	0	62	16	0	1	0	0	0	0	0	0	0	0	79	1
23:00	0	49	13	0	3	0	0	0	0	0	0	0	0	65	3
Total	29	2545	846	43	203	35	1	19	22	1	0	0	0	3744	324
Percent	0.8%	68.0%	22.6%	1.1%	5.4%	0.9%	0.0%	0.5%	0.6%	0.0%	0.0%	0.0%	0.0%		8.7%
AM Peak	11:00	08:00	08:00	08:00	08:00	08:00	10:00	06:00	07:00	10:00				08:00	08:00
Vol. PM Peak	10 18:00	173 16:00	61 17:00	9 15:00	19 16:00	12:00	1	16:00	12:00	1_				273 17:00	37 15:00
Vol.	18:00	267	75	15:00	16:00	6		2	12:00					361	25
Grand Total	80	5059	1660	79	402	67	2	46	41	1	0	0	0	7437	638
5	4 40/	00.00/	00.00/	4.407	5 40/	0.00/	0.00/	0.00/	0.00/	0.00/	0.00/	0.00/	0.00/		0.00/

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

Active School Zone NB

Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 Axl		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	0	14	2	0	1	0	0	0	0	0	0	0	0	17	1
01:00	0	2	1	0	2	0	0	0	0	0	0	0	0	5	2
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0
03:00	0	6	3	1	0	0	0	0	0	0	0	0	0	10	1
04:00	0	14	1	0	2	0	0	0	0	0	0	0	0	17	2
05:00	2	57	22	0	3	0	0	1	1	0	0	0	0	86	5
06:00	3	185	63	2	5	1	0	0	1	0	1	0	0	261	10
07:00	5	260	58	1	13	1	0	5	0	0	0	0	0	343	20
08:00	0	244	58	8	9	3	1	2	2	0	0	0	0	327	25
09:00	4	198	58	5	7	1	1	3	1	0	0	0	0	278	18
10:00	2	153	44	1	10	2	0	1	1	0	0	0	0	214	15
11:00	3	138	45	2	4	4	0	1	1	0	0	0	0	198	12
12 PM	1	148	35	1	5	1	0	1	1	0	0	0	0	193	9
13:00	6	157	37	2	5	4	1	2	3	0	0	0	0	217	17
14:00	4	171	42	2	7	2	0	1	1	0	0	0	0	230	13
15:00	6	211	55	11	16	7	0	6	1	0	0	0	0	313	41
16:00	3	260	57	0	8	0	0	1	1	0	0	0	0	330	10
17:00	4	205	38	0	7	1	0	1	3	0	0	0	0	259	12
18:00	4	143	44	0	1	0	0	1	0	0	0	0	0	193	2
19:00	1	97	21	1	3	0	0	0	0	0	0	0	0	123	4
20:00	2	71	23	0	4	1	0	0	0	0	0	0	0	101	5
21:00	0	54	12	0	1	0	0	1	0	0	0	0	0	68	2
22:00	0	42	7	0	2	0	0	0	0	0	0	0	0	51	2
23:00	0	29	4	0	1_	0	0	0	0	0	0	0	0	34	1
Total	50	2866	730	37	116	28	3	27	17	0	1	0	0	3875	229
Percent	1.3%	74.0%	18.8%	1.0%	3.0%	0.7%	0.1%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%		5.9%
AM Peak	07:00	07:00	06:00	08:00	07:00	11:00	08:00	07:00	08:00		06:00			07:00	08:00
Vol.	5	260	63	8	13	4	1_	5	2		1_			343	25
PM Peak	13:00	16:00	16:00	15:00	15:00	15:00	13:00	15:00	13:00					16:00	15:00
Vol.	6	260	57	11	16	7	1	6	3					330	41

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Vol. Grand

Total

Percent

65

0.8%

5741

73.8%

1489

19.1%

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

7778

483

6.2%

Federal Furnace Rd, north of Elem Sch Dr Active School Zone

NB													A	ctive Sch	ool Zone
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 Axl		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	0	13	1	0	0	0	0	0	0	0	0	0	0	14	0
01:00	1	5	3	0	1	0	0	0	0	0	0	0	0	10	1
02:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8	1
03:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6	1
04:00	0	16	4	0	3	0	0	0	0	0	0	0	0	23	3
05:00	0	59	24	1	9	0	0	0	0	0	0	0	0	93	10
06:00	0	182	59	1	4	0	0	0	1	0	0	0	0	247	6
07:00	0	271	65	2	17	0	0	1	1	1	0	0	0	358	22
08:00	2	258	55	6	15	2	1	3	5	0	0	0	0	347	32
09:00	1	182	48	3	6	5	0	2	1	0	0	0	0	248	17
10:00	0	152	43	0	8	7	0	2	2	0	0	0	0	214	19
11:00	0	144	42	4	6	4	0	2	0	0	0	0	0	202	16
12 PM	1	155	42	6	8	0	0	0	2	0	0	0	0	214	16
13:00	1	149	42	0	7	5	0	2	2	0	0	0	0	208	16
14:00	1	182	51	4	14	2	0	3	1	0	0	0	0	258	24
15:00	1	221	62	11	7	0	0	2	2	0	0	0	0	306	22
16:00	2	175	49	1	7	1	0	3	1	0	0	0	0	239	13
17:00	1	222	50	1	9	1	0	2	2	0	0	0	0	288	15
18:00	2	172	45	1	3	3	0	6	1	0	0	0	0	233	14
19:00	1	107	31	0	1	0	0	2	1	Ö	0	0	Ö	143	4
20:00	0	78	16	0	1	0	0	0	0	0	0	0	0	95	1
21:00	1	52	14	0	0	0	0	0	0	0	0	0	0	67	0
22:00	0	42	6	0	0	0	0	1	0	0	0	0	0	49	1
23:00	0	28	5	0	0	0	0	0	0	0	0	0	0	33	0
Total	15	2875	759	41	128	30	1	31	22	1	0	0	0	3903	254
Percent	0.4%	73.7%	19.4%	1.1%	3.3%	0.8%	0.0%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%		6.5%
AM Peak	08:00	07:00	07:00	08:00	07:00	10:00	08:00	08:00	08:00	07:00				07:00	08:00
Vol.	2	271	65	6	17	7	1	3	5	11				358	32
PM Peak	16:00	17:00	15:00	15:00	14:00	13:00		18:00	12:00					15:00	14:00
Vol.	2	222	62	11	14	5		6	2					306	24

4

0.1%

58

0.7%

39

0.5%

1

0.0%

1

0.0%

0

0.0%

0

0.0%

78

1.0%

244

3.1%

58

0.7%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Vol.

13

540

148

22

32

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr

Active School Zone

738

70

SB, NB													Α	ctive Sch	ool Zone
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	2	38	9	0	3	0	0	0	0	0	0	0	0	52	3
01:00	1	17	3	0	3	0	0	0	0	0	0	0	0	24	3
02:00	0	15	2	0	0	0	0	0	1	0	0	0	0	18	1
03:00	0	13	3	2	0	0	0	0	0	0	0	0	0	18	2
04:00	0	21	2	0	5	0	0	0	0	0	0	0	0	28	5
05:00	2	82	38	1	13	1	0	1	3	0	0	0	0	141	19
06:00	3	246	90	4	18	1	0	6	3	0	1	0	0	372	33
07:00	7	396	98	2	25	4	0	5	0	0	0	0	0	537	36
08:00	0	398	113	17	24	7	1	8	4	0	0	0	0	572	61
09:00	4	298	111	9	15	2	1	4	3	0	0	0	0	447	34
10:00	3	255	81	1	22	7	0	3	2	0	0	0	0	374	35
11:00	4	254	89	3	15	6	0	1	2	0	0	0	0	374	27
12 PM	2	271	83	1	10	7	0	5	3	0	0	0	0	382	26
13:00	13	260	71	4	18	7	1	3	5	0	0	0	0	382	38
14:00	4	315	102	4	17	5	0	2	2	0	0	0	0	451	30
15:00	12	455	143	22	28	9	1	7	3	0	0	0	0	680	70
16:00	11	540	148	1	32	1	0	3	2	0	0	0	0	738	39
17:00	9	446	104	0	22	2	0	3	3	0	0	0	0	589	30
18:00	9	324	79	0	15	0	0	1	0	0	0	0	0	428	16
19:00	5	222	51	1	8	0	0	0	0	0	0	0	0	287	9
20:00	6	186	47	0	9	1	0	0	0	0	0	0	0	249	10
21:00	2	142	43	1	2	0	0	1	0	0	0	0	0	191	4
22:00	0	112	21	0	6	0	0	1	0	0	0	0	0	140	7
23:00	2	74	13	0	5	0	0	0	0	0	0	0	0	94	5
Total	101	5380	1544	73	315	60	4	54	36	0	1	0	0	7568	543
Percent	1.3%	71.1%	20.4%	1.0%	4.2%	0.8%	0.1%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%		7.2%
AM Peak	07:00	08:00	08:00	08:00	07:00	08:00	08:00	08:00	08:00		06:00			08:00	08:00
Vol.	7	398	113	17	25	7	1_	8	4		1_			572	61
PM Peak	13:00	16:00	16:00	15:00	16:00	15:00	13:00	15:00	13:00					16:00	15:00

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, north of Elem Sch Dr Active School Zone

םי	NID	

SB, NB													P	ctive Sch	ooi zone
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	1	35	9	0	2	0	0	0	0	0	0	0	0	47	2
01:00	2	25	7	0	2	0	0	0	0	0	0	0	0	36	2
02:00	0	14	2	0	2	0	0	0	0	0	0	0	0	18	2
03:00	0	14	2	0	1	0	0	0	0	0	0	0	0	17	1
04:00	0	20	6	0	7	0	0	0	0	0	0	0	0	33	7
05:00	0	79	34	3	17	0	0	0	1	0	0	0	0	134	21
06:00	0	252	81	3	13	2	0	3	3	0	0	0	0	357	24
07:00	1	404	105	3	25	2	0	3	5	1	0	0	0	549	39
08:00	4	431	116	15	34	6	1	4	9	0	0	0	0	620	69
09:00	1	295	104	4	12	9	0	3	4	0	0	0	0	432	32
10:00	0	262	81	3	24	8	1	3	4	1	0	0	0	387	44
11:00	10	249	83	11	18	8	0	3	1	0	0	0	0	383	41
12 PM	1	256	92	9	17	6	0	1	3	0	0	0	0	385	36
13:00	1	262	96	1	20	9	0	3	3	0	0	0	0	395	36
14:00	3	322	115	7	28	3	0	4	2	0	0	0	0	484	44
15:00	3	441	124	20	20	1	0	3	3	0	0	0	0	615	47
16:00	3	442	119	2	24	3	0	5	1	0	0	0	0	599	35
17:00	3	484	125	2	26	2	0	4	3	0	0	0	0	649	37
18:00	6	366	104	1	12	5	0	7	1	0	0	0	0	502	26
19:00	2	246	80	0	10	0	0	2	1	0	0	0	0	341	13
20:00	0	183	46	0	10	1	0	1	0	0	0	0	0	241	12
21:00	3	157	34	0	3	0	0	0	0	0	0	0	0	197	3
22:00	0	104	22	0	1	0	0	1	0	0	0	0	0	128	2
23:00	0	77	18	0	3	0	0	0	0	0	0	0	0	98	3
Total	44	5420	1605	84	331	65	2	50	44	2	0	0	0	7647	578
Percent	0.6%	70.9%	21.0%	1.1%	4.3%	0.9%	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%		7.6%
AM Peak	11:00	08:00	08:00	08:00	08:00	09:00	08:00	08:00	08:00	07:00				08:00	08:00
Vol.	10	431	116	15	34	9	1_	4	9	1_				620	69
PM Peak	18:00	17:00 484	17:00	15:00	14:00 28	13:00		18:00 7	12:00					17:00	15:00 47
Vol.	6	484	125	20	28	9		7	3					649	47
Grand															
Total	145	10800	3149	157	646	125	6	104	80	2	1	0	0	15215	1121
Percent	1.0%	71.0%	20.7%	1.0%	4.2%	0.8%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%		7.4%
			,			,		3,0	,,.		,	,			

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

SB													Ac	tive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:45	0		0	0	0	0	0	0		0	0			0	0
04:00	*	0	*	*	*	*	*	*	0	*	*	0	0	· *	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0-110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:45															
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 08:15	1	0	0	8	18	15	11	5	0	0	0	0	0	0	58
08:30	1	3	14	8	24	14	5	2	0	0	0	0	0	0	71
08:30	4	3	10	25	27	7	1	0	0	0	0	0	0	0	71
00.40	6	6	24	41	69	36	17	7	0	0	0	0	0	0	206
09:00	2	0	5	5	13	17	5	0	1	0	0	0	0	0	48
09:00	1	0	3	4	10	12	12	1	0	0	0	0	0	0	43
Total	9	6	32	50	92	65	34	8	1	0	0	0	0	0	297
							<u> </u>		· ·						
Grand Total	9	6	32	50	92	65	34	8	1	0	0	0	0	0	297

15th Percentile : 25 MPH 50th Percentile : 33 MPH 85th Percentile : 40 MPH 95th Percentile: 44 MPH

33 MPH Stats

Mean Speed(Average):
10 MPH Pace Speed:
Number in Pace:
Percent in Pace:
Number of Vehicles > 20 MPH:
Percent of Vehicles > 20 MPH: 31-40 MPH 157 52.9% 282 94.9%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30		*	*		*	*		*	*		*	*		*	
03:45	*			*	*		*			*		*	*		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:30	*	•	*	*	*	*	*	*	*	*	*	*	*	*	
04:45															
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	· *
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:15	2	0	0	10	12	22	27	4	2	0	0	0	0	0	79
08:30	0	0	2	15	16	36	10	1	0	0	0	0	0	0	80
08:45	4	0	2	16	32	24	10	1	0	0	0	0	0	0	89
00.40	6	0	4	41	60	82	47	6	2	0	0	0	0	0	248
09:00	3	0	0	14	38	24	9	0	0	0	0	0	0	0	88
09:00	0	0	4	11	11	13	9	2	0	0	0	0	0	0	50
Total	9	0	8	66	109	119	65	8	2	0	0	0	0	0	386
Grand															
Tatal	9	0	8	66	109	119	65	8	2	0	0	0	0	0	386

15th Percentile : 29 MPH 50th Percentile : 36 MPH 42 MPH 45 MPH 85th Percentile : 95th Percentile:

35 MPH Stats

Total

Mean Speed(Average):
10 MPH Pace Speed:
Number in Pace:
Percent in Pace:
Number of Vehicles > 20 MPH:
Percent of Vehicles > 20 MPH: 31-40 MPH 228 59.1% 377 97.7%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Tota
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
00.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:45															
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
04:00	*	*	*	*	*	*	*	*	*	*	*		*		
04:15	*	*		*	*	*	*	*	*	*	*	*	*	*	
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	C
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
00.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
06:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
06:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
08:15	3	0	0	18	30	37	38	9	2	0	0	0	0	0	137
08:30	1	3	16	23	40	50	15	3	0	0	0	0	0	0	15
08:45	8	3	12	41	59	31	11	1	0	0	0	0	0	0	160
	12	6	28	82	129	118	64	13	2	0	0	0	0	0	454
09:00	5	0	5	19	51	41	14	0	1	0	0	0	0	0	136
09:15	11	0	7	15	21	25	21	3	0	0	0	0	0	0	93
Total	18	6	40	116	201	184	99	16	3	0	0	0	0	0	683
_															
Grand	18	6	40	116	201	184	99	16	3	0	0	0	0	0	683
Tatal															

15th Percentile : 27 MPH 50th Percentile : 35 MPH 85th Percentile : 41 MPH 95th Percentile: 45 MPH

34 MPH Stats

Total

Mean Speed(Average) : 10 MPH Pace Speed : Number in Pace : Percent in Pace : 31-40 MPH 385 56.4% Number of Vehicles > 20 MPH: Percent of Vehicles > 20 MPH: 659 96.5%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Total

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

SB Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:15 01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
01.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	•
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
03:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
0.4.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Q
04:00	*	•	•	•	•	•	•	•	•	•		•	•	•	
04:15 04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	•
06:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
06:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:30 07:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
08:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
08:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
08:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
09:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
09:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10:15 10:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
11:15	1	1	2	3	8	15	19	0	0	0	0	0	0	0	49
11:30	0	1	3	3	6	19	7	2	0	0	0	0	0	0	41
11:45	0	1	0	3	13	15	12	3	0	0	0	0	0	0	47
11.70	1	3	5	9	27	49	38	5	0	0	0	0	0	0	137

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

Time 15 20 25 30 35 40 45 50 55 60 65 70 75 999 T 12PM 0 0 0 3 4 5 14 16 10 0 0 0 0 0 0 0 0 0 0 0 1215 3 3 0 1 3 3 9 8 7 1 0 0 0 0 0 0 0 0 0 0 0 0 1225 3 3 0 1 3 3 9 8 7 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1225 3 3 11 14 13 8 5 5 1 0 0 0 0 0 0 0 0 0 0 0 1225 3 1 3 3 3 11 14 13 8 5 5 1 0 0 0 0 0 0 0 0 0 0 0 0 1225 3 1 1 3 3 9 8 7 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1225 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ctort	4	16	24	26	31	36	11	46	E1	EC	61	66	71	76	
12 PM 0 0 0 3 4 5 14 16 1 0 0 0 0 0 0 0 0 0 0 1 12:00 1 3 3 9 8 8 7 1 0 0 0 0 0 0 0 0 0 0 12:00 1 3 3 9 8 8 7 1 0 0 0 0 0 0 0 0 0 0 0 12:00 1 3 3 3 11 1 14 14 13 8 5 1 1 0 0 0 0 0 0 0 0 0 0 0 1 13:00 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																.
12:15 3 0 1 3 9 8 7 1 1 0 0 0 0 0 0 0 0 0 1 12:45 2 0 3 2 110 10 7 8 1 1 0 0 0 0 0 0 0 0 0 0 1 12:45 2 0 3 2 110 10 7 8 1 1 0 0 0 0 0 0 0 0 0 0 0 1 12:45 2 0 3 2 110 10 17 8 1 1 0 0 0 0 0 0 0 0 0 0 0 1 13:15 0 0 0 0 0 2 8 8 17 14 13 8 5 1 1 0 0 0 0 0 0 0 0 0 1 13:15 0 0 0 0 0 2 8 8 17 14 13 13 8 5 1 1 0 0 0 0 0 0 0 0 0 13:15 0 0 0 0 0 2 8 8 17 14 1 3 3 1 1 0 0 0 0 0 0 0 0 0 13:15 0 0 0 0 0 2 8 8 17 14 1 3 3 1 1 0 0 0 0 0 0 0 0 0 0 13:15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11me															<u>Total</u>
12-30																43 32
1245 2 0 0 2 10 10 7 6 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																59
1300	12:45															38
13:00 1 0 0 2 9 9 17 12 1 0 0 0 0 0 0 0 0 0 1 13:05 0 0 0 0 0 0 0 0 13:30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																172
13.360			0				17			0	0		0		0	42
13.45						8	12					0	0		0	42
14-00						*						*	*		*	*
14-100	13:45															0
14:16	14:00															*
14:435	14:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14.45		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:16																0
15:30																*
16.465 16.400 10 10 10 10 10 10 10 10 10				*		*				*		*	*		*	*
16:00				*		*				*		*	*		*	*
16:00	15:45															0
16:15	16:00															*
16:30		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:46		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:15																0
17:30 17:45 17:45 17:45 17:45 18:00																*
17:45				*		*						*	*		*	*
18:00				*		*						*	*		*	*
18:00	17.45															0
18:15	18:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:30	18:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00		*	*	*		*	*	*	*	*	*	*	*	*	*	*
19:00	18:45		*	*		*	*			*		*	*			*
19:15 19:30 19:45										0			0		0	0
19:10 19:45 19:46										*			*		*	*
19:45													*		*	*
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				*	*	*				*	*	*	*		*	*
20:00 20:15 20:30 20:30 20:45 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	20:00															*
20:45		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																*
21:00	20:45															*
21:105 21:115 21:30 21:45 21:4	04.00			0						0	0	0	0		0	0
21:30 21:45				*						*	*	*	*		*	*
21:45													*			*
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:45	22:15		*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00																*
23:00	22:45															*
23:15	22.00															0
23:30																*
23:45 * * * * * * * * * * * * * * * * * * *																*
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total 7 3 9 33 55 71 63 12 2 1 0 0 0 0	_0.10		0	0		0	0	0	0		0	0	0	0	0	0
Grand	Total															256
Grand																
Total 8 6 14 42 82 120 101 17 2 1 0 0 0 0 Total			•		40	00	400	404	4-	•						393

 15th Percentile :
 29 MPH

 50th Percentile :
 37 MPH

 85th Percentile :
 44 MPH

 95th Percentile :
 45 MPH

 Stats
 Mean Speed(Average) :
 36 MPH

 10 MPH Pace Speed :
 36-45 MPH

 Number in Pace :
 221

 Percent in Pace :
 56.2%

 Number of Vehicles > 20 MPH :
 379

 Percent of Vehicles > 20 MPH :
 96.4%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

N	R	

NB													AC	tive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*		*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:15		*		*	*		*	*	*	*	*	*	*	*	*
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:45		*			*	*	*		*			*			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*		*	*	
07:15	*		*	*	-	*	*	*		*	*		_	*	
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:45		0	0	0				0			0		0		
00.00	0	*	*	*	0	0	0	*	0	0	*	0	*	0	0
08:00 08:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
. 5. 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:15	2	0	0	3	13	17	10	2	0	0	0	0	0	0	47
11:30	0	0	1	9	20	22	7	0	1	Ő	0	0	0	0	60
11:45	0	0	0	2	9	24	17	0	0	0	0	0	0	0	52
	2	0	1	14	42	63	34	2	1	0	0	0	0	0	159
Total	2	0	1	14	42	63	34	2	1	0	0	0	0	0	159

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10

Federal Furnace Rd, north of Elem Sch Dr

NB Stort	4	16	24	26	24	26	11	46	E 1	E.C.	64	66	74	76	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	-
Time	15	20	25	30	35	40	45	50	55	60	65	70	<u>75</u>	999	Tota
12 PM 12:15	1 2	0	0	5 9	10 10	20 25	11 8	2 0	0	0	0	0	0	0	49 54
12:30	1	0	0	3	23	13	10	0	0	0	0	0	0	0	50
12:45	2	0	1	13	19	17	10	0	0	0	0	0	0	0	62
	6	0	1	30	62	75	39	2	0	0	0	0	0	0	215
13:00 13:15	1	0	2 0	6 5	7 14	18 12	16 17	1 2	0	0	0	0	0	0	5′ 50
13:30	*	*	*	*	*	1Z *	*	*	*	*	*	*	*	*	50
13:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14:15 14:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
15:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
15:30 15:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
16:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
16:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	•
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
17:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
40.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
18:00 18:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
18:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
18:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
19:15 19:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
19:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	•
20:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
20:30 20:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
21:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
22:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
22:45	*	* 0	0	* 0	0	0	*	0	*	*	*	0	* 0	0	
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	,
23:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
23:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
23:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Tatel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	246
Total	7	0	3	41	83	105	72	5	0	0	0	0	0	0	316
Grand Total	9	0	4	55	125	168	106	7	1	0	0	0	0	0	475

15th Percentile: 31 MPH 50th Percentile: 37 MPH 85th Percentile: 42 MPH 95th Percentile: 45 MPH

36 MPH Stats Mean Speed(Average): 31-40 MPH 10 MPH Pace Speed: Number in Pace :

Total

 Percent in Pace :
 61.7%

 Number of Vehicles > 20 MPH :
 466

 Percent of Vehicles > 20 MPH :
 98.1%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

	76	71	66	61	56	51	46	41	36	31	26	21	16	1	Start
Tota	999	75	70	65	60	55	50	45	40	35	30	25	20	15	Time
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5/27/10
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	00:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	00:30 00:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00.40
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	01:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	01:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	01:30 01:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	01.40
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	02:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	02:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	02:30
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	02:45
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	03:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	03:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	03:30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03:45
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	04:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	04:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	04:30
	*	*	*	*	*	*		*	*	*	*	*	*	*	04:45
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	05:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	05:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	05:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	05:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	06:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	06:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	06:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	06:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	07:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	07:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	07:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	07:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00.00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	08:00 08:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	08:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	08:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00.00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	09:00 09:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	09:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	09:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10:15 10:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
•	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11:00
9 10	0	0	0	0	0	0	2	29 14	32 41	21 26	6 12	2 4	1 1	3 0	11:15 11:30
9	0	0	0	0	0	0	3	29	39	22	5	0	1	0	11:45
29	0	0	0	0	0	1	7	72	112	69	23	6	3	3	
29	0	0	0	0	0	11	7	72	112	69	23	6	3	3	Total

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr Active School Zone

CD ND

SB, NB													AC	tive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12 PM	1	0	3	9		34	27	3	0	0	0	0	0	0	92
12:15	5	0	1	12	19	33	15	1	0	0	0	0	0	0	86
12:30	2	3	3	14	37	26	18	5	1	0	0	0	0	0	109
12:45	4	0	3	23	29	24	16	1	0	0	0	0	0	0	100
	12	3	10	58	100	117	76	10	1	0	0	0	0	0	387
13:00	2	0	2	8	16	35	28	2	0	0	0	0	0	0	93
13:15 13:30	0	0	0	8	22	24	31	5	1	1	0	0	0	0	92
13:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:30 16:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:15 19:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:45	* 0	* 0	*	0	*	*	* 0	* 0	0	*	*	*	*	*	0
21:00	*	*	0	*	0	0	*	*	*	0	0	0	0	*	*
21:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:15 22:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	12	74	129	176	125	17	2	<u> </u>	0	0	0	0	572
Total	14	3	12	74	138	176	135	17		1	0	U	0	0	572
Grand Total	17	6	18	97	207	288	207	24	3	1	0	0	0	0	868

30 MPH 15th Percentile: 50th Percentile: 37 MPH 85th Percentile: 43 MPH 95th Percentile: 45 MPH

36 MPH Stats Mean Speed(Average): 10 MPH Pace Speed:

Number in Pace :

33-42 MPH

 Percent in Pace :
 57.3%

 Number of Vehicles > 20 MPH :
 845

 Percent of Vehicles > 20 MPH :
 97.4%

0 *

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

> 09:15 09:30 09:45

10:00 10:15 10:30 10:45

11:00 11:15 11:30 11:45

Total

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

SB													Ac	ctive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:45	*	*	*	*	*	*	*		*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00								*				*			*
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45															*
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	•
06:15 06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:45							0		0			0			
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03.00															

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

	4	10	24	0.0	24	20	11	40	E 1	EC	64	66	74	76	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71		
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:45															*
40.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 13:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	3	0	0	7	19	18	14	11	0	0	0	0	0	0	72
15:15	5	6	5	18	28	8	10	2	0	0	0	0	0	0	82
15:30	3	2	9	21	17	21	8	3	0	0	0	0	0	0	84
15:45	3	0	2	8	9	33	14	2	0	0	0	0	0	0	71
	14	8	16	54	73	80	46	18	0	0	0	0	0	0	309
16:00	1	1	0	10	23	26	21	1	0	0	0	0	0	0	83
16:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:15 20:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	9	16	64	96	106	67	19	0	0	0	0	0	0	392
i Ulai	10	<u> </u>	10	04	30	100	UI .	13	U	U	U	U	U	U	332

 15th Percentile :
 27 MPH

 50th Percentile :
 35 MPH

 85th Percentile :
 42 MPH

 95th Percentile :
 45 MPH

 Stats
 Mean Speed(Average) :
 34 MPH

 10 MPH Pace Speed :
 31-40 MPH

 Number in Pace :
 202

 Percent in Pace :
 51.5%

 Number of Vehicles > 20 MPH :
 368

 Percent of Vehicles > 20 MPH :
 93.9%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

N	R	

NB													AC	tive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30		*			*										
03:45	*	*	*	*		*	*	*	*	*	*	*	*	*	*
0.4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	•	*	*	^	*	•	*	•	*	*		•		
04:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:45	0	0	0	0	0		0	0	0	0	0	0	0	0	
05:00	*	*	*	*	*	0	*	*	*	*	*	*	*	*	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:30		*		*	*	*			*	*	*	*	*	*	*
09:45	*	*	*				*	*				*			*
40.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
I Ulai	<u> </u>	U	U	<u> </u>	U	<u> </u>	U	U	U	U	U	U	<u> </u>		

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr
Active School Zone

	76	71	66	61	56	51	46	41	36	31	26	21	16	1	Start
Tota	999	75	70	65	60	55	50	45	40	35	30	25	20	15	Time
TOLA			*	*	*		<u>*</u>	-43	40			<u> </u>		*	12 PM
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*		*	*	*	*	*	*	*	*	*	*	*	*	14:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14:15 14:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.45
7	0	0	0	0	0	0	3	17	18	24	9	0	0	2	15:00
5	0	0	0	0	0	0	1	13	20	11	7	0	0	3	15:15
10	0	0	0	0	0	0	1	0	8	44	49	1	0	2	15:30
30	0	0	0	0	0	0	1	12	19	32	3	0	0	6	15:45
30	0	0	0	0	0	0	6	42	65	111	68	1	0	13	
6	0	0	0	0	0	0	7	11	28	16	0	0	0	4	16:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16:30
	*	*	*	*	*	*	*		*	*	*	*	*	*	16:45
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47.00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:15 17:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.40
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:30
	0	0		0	0	0	0	0	0	0	0	0	0	0	19:45
	*	*	0	*	*	*	*	*	*	*	*	*	*	*	20:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00.00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:15 22:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.70
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	0	0	0	0	0	0	13	53	93	127	68	1	0	17	Total
37	0	0	0	0	0	0	13	53	93	127	68	1	0	17	Grand
.37		0	•	•	•	•		00	00	141	00		•		Total

 15th Percentile :
 28 MPH

 50th Percentile :
 34 MPH

 85th Percentile :
 41 MPH

 95th Percentile :
 45 MPH

 Stats
 Mean Speed(Average) :
 34 MPH

 10 MPH Pace Speed :
 31-40 MPH

 Number in Pace :
 220

 Percent in Pace :
 59.1%

 Number of Vehicles > 20 MPH :
 355

 Percent of Vehicles > 20 MPH :
 95.4%

0

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Total

Station ID: Site Code: 239 Date Start: 27-May-10 Date End: 27-May-10 Federal Furnace Rd, north of Elem Sch Dr

SB, NB											i cacia	l Furnace	Ac	ctive Sch	ool Zone
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
00:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:45	0		0	0	0					0	0	0		0	
02:00	*	0	*	*	· *	0	0	0	0	*	*	*	0	*	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*		
06:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:30 06:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:30	*	*	*	*	*		*	*	*	*		*	*	*	*
09:45				*		*					*				*
40.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 10:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:15 10:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11.50															

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #14 Tube Layout: L6 Basic (2')

Station ID:
Site Code: 239
Date Start: 27-May-10
Date End: 27-May-10
Federal Furnace Rd, north of Elem Sch Dr

	76	71	66	61	56	51	46	41	36	31	26	21	16	1	B, NB Start
Tota	999	75	70	65	60	55	50	45	40	35	30	25	20	15	Time
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12 PM
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12:15 12:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13:30 13:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.40
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14:30 14:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:45
14	0	0	0	0	0	0	14	31	36	43	16	0	0	5	15:00
13	0	0	0	0	0	0	3	23	28	39	25	5	6	8	15:15
18	0	0	0	0	0	0	4	8	29	61	70	10	2	5	15:30
14	0	0	0	0	0	0	3	26	52	41	11	2	0	9	15:45
61 14	0 0	0 0	0 0	0 0	0 0	0 0	24 8	88 32	145 54	184 39	122 10	17 0	8 1	27 5	16:00
14	*	*	*	*	*	*	*	3Z *	*	39 *	*	*	*	*	16:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:15 17:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17:30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18:30 18:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.43
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19:30
	*	0	0	0	0	* 0	* 0	0	* 0	0	0	0	0	* 0	19:45
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:00 21:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:15 22:30
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22:45
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.10
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:00
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:15
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23:30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23:45
76	0	0	0	0	0	0	32	120	199	223	132	17	9	32	Total
															Grand
76	0	0	0	0	0	0	32	120	199	223	132	17	9	32	Total

 15th Percentile :
 28 MPH

 50th Percentile :
 35 MPH

 85th Percentile :
 42 MPH

 95th Percentile :
 45 MPH

 Stats
 Mean Speed(Average) :
 34 MPH

 10 MPH Pace Speed :
 31-40 MPH

 Number in Pace :
 422

 Percent in Pace :
 55.2%

 Number of Vehicles > 20 MPH :
 723

 Percent of Vehicles > 20 MPH :
 94.6%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

Start Time 2:00 AM 01:00	24-May SB			ie	V.	/ed		Γhu	F	П	Sa	สเ	Sun		V V C C I C / (V	erage
2:00 AM		NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	ЙB
01:00	*	*	*	*	33	16	31	14	*	*	*	*	*	*	32	
	*	*	*	*	19	6	26	11	*	*	*	*	*	*	22	
02:00	*	*	*	*	10	6	10	7	*	*	*	*	*	*	10	
03:00	*	*	*	*	7	8	11	7	*	*	*	*	*	*	9	
04:00	*	*	*	*	12	18	10	24	*	*	*	*	*	*	11	
05:00	*	*	*	*	58	83	43	92	*	*	*	*	*	*	50	8
06:00	*	*	*	*	103	270	104	249	*	*	*	*	*	*	104	20
07:00	*	*	*	*	185	323	183	365	*	*	*	*	*	*	184	34
08:00	*	*	*	*	160	317	177	311	*	*	*	*	*	*	168	3
09:00	*	*	*	*	144	249	144	225	*	*	*	*	*	*	144	2
10:00	*	*	*	*	149	202	164	182	*	*	*	*	*	*	156	1
11:00	*	*	*	*	173	190	156	180	*	*	*	*	*	*	164	1
2:00 PM	*	*	*	*	184	184	155	206	*	*	*	*	*	*	170	1
01:00	*	*	*	*	160	194	178	194	*	*	*	*	*	*	169	1
02:00	*	*	*	*	210	230	224	250	*	*	*	*	*	*	217	2
03:00	*	*	*	*	344	247	273	231	*	*	*	*	*	*	308	2
04:00	*	*	*	*	369	265	357	220	*	*	*	*	*	*	363	2
05:00	*	*	*	*	319	245	324	288	*	*	*	*	*	*	322	20
06:00	*	*	*	*	226	187	235	180	*	*	*	*	*	*	230	18
07:00	*	*	*	*	164	123	187	119	*	*	*	*	*	*	176	1
08:00	*	*	*	*	148	98	150	88	*	*	*	*	*	*	149	
09:00	*	*	*	*	116	65	118	68	*	*	*	*	*	*	117	
10:00	*	*	*	*	90	49	77	49	*	*	*	*	*	*	84	
11:00	*	*	*	*	59	34	62	28	*	*	*	*	*	*	60	
Total	0	0	0	0	3442	3609	3399	3588	0	0	0	0	0	0	3419	35
Day	0		0		70		69		0		0		0		7017	
AM Peak					07:00	07:00	07:00	07:00							07:00	07:
Vol.					185	323	183	365							184	3
PM Peak					16:00	16:00	16:00	17:00							16:00	17:
Vol.					369	265	357	288							363	20
Comb.		0		0		7051		6987		0		0		0		7017

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

Start Time	24-May-10 Mon	25-May-10 Tue	26-May-10 Wed	27-May-10 Thu	28-May-10 Fri	29-May-10 Sat	30-May-10 Sun	Week Average
12:00 AM	*	*	49	45	*	*	*	47
01:00	*	*	25	37	*	*	*	31
02:00	*	*	16	17	*	*	*	16
03:00	*	*	15	18	*	*	*	16
04:00	*	*	30	34	*	*	*	32
05:00	*	*	141	135	*	*	*	138
06:00	*	*	373	353	*	*	*	363
07:00	*	*	508	548	*	*	*	528
08:00	*	*	477	488	*	*	*	482
09:00	*	*	393	369	*	*	*	381
10:00	*	*	351	346	*	*	*	348
11:00	*	*	363	336	*	*	*	350
12:00 PM	*	*	368	361	*	*	*	364
01:00	*	*	354	372	*	*	*	363
02:00	*	*	440	474	*	*	*	457
03:00	*	*	591	504	*	*	*	548
04:00	*	*	634	577	*	*	*	606
05:00	*	*	564	612	*	*	*	588
06:00	*	*	413	415	*	*	*	414
07:00	*	*	287	306	*	*	*	296
08:00	*	*	246	238	*	*	*	242
09:00	*	*	181	186	*	*	*	184
10:00	*	*	139	126	*	*	*	132
11:00	*	*	93	90	*	*	*	92
Total	0	0	7051	6987	0	0	0	7018
Percentage	0.0%	0.0%	100.5%	99.6%	0.0%	0.0%	0.0%	
AM Peak			07:00	07:00				07:00
Vol.			508	548				528
PM Peak			16:00	17:00				16:00
Vol.			634	612				606

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

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<u> </u>															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	0	4	10	15	3	0	1	0	0	0	33
01:00	0	0	0	0	1	3	7	6	1	1	0	0	0	0	19
02:00	0	0	0	0	0	2	3	4	1	0	0	0	0	0	10
03:00	0	0	0	0	0	2	4	1	0	0	0	0	0	0	7
04:00	0	0	0	0	0	2	3	4	3	0	0	0	0	0	12
05:00	0	0	0	0	1	7	20	19	9	2	0	0	0	0	58
06:00	2	0	0	0	5	18	44	24	9	1	0	0	0	0	103
07:00	8	0	0	1	12	37	96	25	6	0	0	0	0	0	185
08:00	7	0	0	1	11	60	68	12	1	0	0	0	0	0	160
09:00	2	0	0	1	5	50	71	15	0	0	0	0	0	0	144
10:00	3	0	0	0	10	61	65	10	0	0	0	0	0	0	149
11:00	1	0	0	0	4	74	75	16	3	0	0	0	0	0	173
12 PM	1	0	0	1	11	76	72	21	2	0	0	0	0	0	184
13:00	3	0	0	0	6	50	74	21	6	0	0	0	0	0	160
14:00	5	0	0	3	23	70	81	24	4	0	0	0	0	0	210
15:00	10	4	1	10	37	151	110	21	0	0	0	0	0	0	344
16:00	6	0	0	0	5	117	185	42	11	2	0	0	0	1	369
17:00	7	0	1	2	6	56	178	62	7	0	0	0	0	0	319
18:00	2	0	0	0	5	63	106	40	8	1	0	0	1	0	226
19:00	2	0	0	0	4	50	68	36	3	1	0	0	0	0	164
20:00	0	0	0	1	16	54	58	18	1	0	0	0	0	0	148
21:00	0	0	0	5	19	44	39	5	4	0	0	0	0	0	116
22:00	3	0	1	3	15	23	32	8	5	0	0	0	0	0	90
23:00	1	0	0	0	4	19	21	7	4	1	1	1	0	0	59
Total	63	4	3	28	200	1093	1490	456	91	9	2	1	1	1	3442

Daily

15th Percentile : 36 MPH 50th Percentile : 42 MPH 85th Percentile : 46 MPH 95th Percentile : 50 MPH Speed(Average) : 41 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2583

 Percent in Pace:
 75.0%

 Number of Vehicles > 40 MPH:
 2051

 Percent of Vehicles > 40 MPH:
 59.6%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

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Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	3	11	8	9	0	0	0	0	- 70	0	31
01:00	0	0	0	0	1	3	12	8	1	1	0	0	0	0	26
02:00	0	0	0	0	2	2	2	4	0	0	0	0	0	0	10
03:00	0	Õ	Ő	1	0	5	3	1	1	0	0	0	0	0	11
04:00	0	0	0	0	0	0	5	2	1	1	0	Ō	1	0	10
05:00	0	0	0	0	2	6	13	13	8	1	0	0	0	0	43
06:00	0	0	0	0	3	22	45	25	8	1	0	0	0	0	104
07:00	6	0	0	2	8	43	91	25	8	0	0	0	0	0	183
08:00	3	0	5	2	10	46	82	25	4	0	0	0	0	0	177
09:00	4	0	0	0	7	52	63	15	3	0	0	0	0	0	144
10:00	3	0	0	1	5	58	83	11	2	1	0	0	0	0	164
11:00	2	0	0	0	12	61	57	23	1	0	0	0	0	0	156
12 PM	2	0	0	9	10	53	59	18	4	0	0	0	0	0	155
13:00	4	0	0	0	8	55	88	20	2	0	1	0	0	0	178
14:00	1	0	1	0	15	82	82	37	5	1	0	0	0	0	224
15:00	4	0	0	4	21	107	117	20	0	0	0	0	0	0	273
16:00	7	0	1	3	6	113	176	48	3	0	0	0	0	0	357
17:00	10	0	0	2	10	125	134	39	4	0	0	0	0	0	324
18:00	2	0	0	0	4	85	111	28	5	0	0	0	0	0	235
19:00	1	0	0	1	7	64	85	25	4	0	0	0	0	0	187
20:00	0	0	0	1	5	51	68	22	2	1	0	0	0	0	150
21:00	1	0	0	0	17	35	47	15	3	0	0	0	0	0	118
22:00	0	0	0	0	5	22	29	18	2	0	0	1	0	0	77
23:00	0	0	0	0	1	25	19	13	3	1	0	0	0	0	62
Total	50	0	7	26	162	1126	1479	464	74	8	1	1	1	0	3399

Daily

 15th Percentile :
 37 MPH

 50th Percentile :
 42 MPH

 85th Percentile :
 46 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 2605

 Percent in Pace:
 76.6%

 Number of Vehicles > 40 MPH:
 2028

 Percent of Vehicles > 40 MPH:
 59.7%

Grand 113 4 10 362 2219 2969 920 2 54 165 17 3 2 1 6841

Overall

 15th Percentile :
 37 MPH

 50th Percentile :
 42 MPH

 85th Percentile :
 46 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 5188

 Percent in Pace:
 75.8%

 Number of Vehicles > 40 MPH:
 4079

 Percent of Vehicles > 40 MPH:
 59.6%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

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Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	0	4	5	6	1	0	0	0	0	0	16
01:00	0	0	0	0	1	1	2	1	1	0	0	0	0	0	6
02:00	0	0	0	0	0	0	4	2	0	0	0	0	0	0	6
03:00	0	0	0	0	0	0	2	3	2	1	0	0	0	0	8
04:00	0	0	0	0	0	0	4	7	5	1	1	0	0	0	18
05:00	0	0	0	1	0	0	32	36	10	3	1	0	0	0	83
06:00	3	0	0	0	4	21	98	113	30	0	1	0	0	0	270
07:00	3	0	0	2	3	40	117	135	21	1	1	0	0	0	323
08:00	6	0	0	10	13	56	154	67	10	1	0	0	0	0	317
09:00	3	0	0	6	4	63	110	51	12	0	0	0	0	0	249
10:00	4	0	0	0	11	28	100	50	8	0	1	0	0	0	202
11:00	4	0	0	0	4	32	104	42	4	0	0	0	0	0	190
12 PM	4	0	0	1	5	30	81	50	13	0	0	0	0	0	184
13:00	6	0	0	0	4	35	74	68	6	1	0	0	0	0	194
14:00	3	1	1	1	8	28	103	72	12	0	0	1	0	0	230
15:00	11	0	0	4	8	49	91	68	15	1	0	0	0	0	247
16:00	6	0	0	0	4	33	124	82	14	1	1	0	0	0	265
17:00	12	0	0	0	1	27	92	97	15	1	0	0	0	0	245
18:00	5	0	0	0	5	27	88	59	3	0	0	0	0	0	187
19:00	1	0	0	2	5	21	50	35	8	1	0	0	0	0	123
20:00	0	0	0	0	6	19	45	23	5	0	0	0	0	0	98
21:00	0	0	0	1	7	23	21	11	2	0	0	0	0	0	65
22:00	0	1	0	3	5	14	18	6	2	0	0	0	0	0	49
23:00	0	0	0	0	2	5	18	9	0	0	0	0	0	0	34
Total	71	2	1	31	100	556	1537	1093	199	12	6	1	0	0	3609

Daily

39 MPH 44 MPH 49 MPH 15th Percentile : 50th Percentile: 85th Percentile : 95th Percentile: 51 MPH

43 MPH

Mean Speed(Average):
10 MPH Pace Speed:
Number in Pace:
Percent in Pace:
Number of Vehicles > 40 MPH:
Percent of Vehicles > 40 MPH: 43 MPH 41-50 MPH 2630 72.9% 2848 78.9%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	0	4	7	3	0	0	0	0	0	0	14
01:00	0	0	0	0	0	2	2	3	4	0	0	0	0	0	11
02:00	0	0	0	0	0	2	2	3	0	0	0	0	0	0	7
03:00	0	0	0	0	0	1	2	4	0	0	0	0	0	0	7
04:00	0	0	0	0	1	2	8	5	6	1	1	0	0	0	24
05:00	0	0	0	0	1	4	31	41	13	2	0	0	0	0	92
06:00	5	0	0	0	1	24	116	78	22	3	0	0	0	0	249
07:00	6	0	0	4	14	42	174	113	12	0	0	0	0	0	365
08:00	4	0	0	1	13	84	151	48	6	4	0	0	0	0	311
09:00	10	0	0	3	8	68	99	30	7	0	0	0	0	0	225
10:00	1	0	2	3	3	33	88	49	2	1	0	0	0	0	182
11:00	2	0	0	2	6	17	94	48	8	3	0	0	0	0	180
12 PM	2	0	1	1	10	22	110	54	4	2	0	0	0	0	206
13:00	5	0	0	3	10	42	70	51	10	3	0	0	0	0	194
14:00	4	0	0	1	9	46	110	61	17	2	0	0	0	0	250
15:00	9	0	0	5	11	50	105	43	7	1	0	0	0	0	231
16:00	6	0	0	2	3	32	79	74	20	4	0	0	0	0	220
17:00	11	0	0	0	1	39	129	87	18	2	1	0	0	0	288
18:00	2	0	0	1	4	17	95	50	11	0	0	0	0	0	180
19:00	1	0	0	0	5	18	52	32	9	2	0	0	0	0	119
20:00	0	0	0	2	3	21	33	25	4	0	0	0	0	0	88
21:00	3	0	0	0	4	12	31	14	4	0	0	0	0	0	68
22:00	0	0	0	1	2	11	16	12	7	0	0	0	0	0	49
23:00	0	0	0	0	1	5	12	7	2	0	0	1	0	0	28
Total	71	0	3	29	110	598	1616	935	193	30	2	1	0	0	3588

Daily

 15th Percentile:
 38 MPH

 50th Percentile:
 44 MPH

 85th Percentile:
 49 MPH

 95th Percentile:
 52 MPH

 Mean Speed(Average):
 43 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 2551

 Percent in Pace:
 71.1%

 Number of Vehicles > 40 MPH:
 2777

 Percent of Vehicles > 40 MPH:
 77.4%

Grand 142 2 4 60 210 1154 3153 2028 392 42 8 2 0 0 7197

Overall

 15th Percentile :
 38 MPH

 50th Percentile :
 44 MPH

 85th Percentile :
 49 MPH

 95th Percentile :
 52 MPH

 Mean Speed(Average):
 43 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 5181

 Percent in Pace:
 72.0%

 Number of Vehicles > 40 MPH:
 5625

 Percent of Vehicles > 40 MPH:
 78.2%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

SB, NB

00,															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	0	8	15	21	4	0	1	0	0	0	49
01:00	0	0	0	0	2	4	9	7	2	1	0	0	0	0	25
02:00	0	0	0	0	0	2	7	6	1	0	0	0	0	0	16
03:00	0	0	0	0	0	2	6	4	2	1	0	0	0	0	15
04:00	0	0	0	0	0	2	7	11	8	1	1	0	0	0	30
05:00	0	0	0	1	1	7	52	55	19	5	1	0	0	0	141
06:00	5	0	0	0	9	39	142	137	39	1	1	0	0	0	373
07:00	11	0	0	3	15	77	213	160	27	1	1	0	0	0	508
08:00	13	0	0	11	24	116	222	79	11	1	0	0	0	0	477
09:00	5	0	0	7	9	113	181	66	12	0	0	0	0	0	393
10:00	7	0	0	0	21	89	165	60	8	0	1	0	0	0	351
11:00	5	0	0	0	8	106	179	58	7	0	0	0	0	0	363
12 PM	5	0	0	2	16	106	153	71	15	0	0	0	0	0	368
13:00	9	0	0	0	10	85	148	89	12	1	0	0	0	0	354
14:00	8	1	1	4	31	98	184	96	16	0	0	1	0	0	440
15:00	21	4	1	14	45	200	201	89	15	1	0	0	0	0	591
16:00	12	0	0	0	9	150	309	124	25	3	1	0	0	1	634
17:00	19	0	1	2	7	83	270	159	22	1	0	0	0	0	564
18:00	7	0	0	0	10	90	194	99	11	1	0	0	1	0	413
19:00	3	0	0	2	9	71	118	71	11	2	0	0	0	0	287
20:00	0	0	0	1	22	73	103	41	6	0	0	0	0	0	246
21:00	0	0	0	6	26	67	60	16	6	0	0	0	0	0	181
22:00	3	1	1	6	20	37	50	14	7	0	0	0	0	0	139
23:00	1	0	0	0	6	24	39	16	4	1	1	1	0	0	93
Total	134	6	4	59	300	1649	3027	1549	290	21	8	2	1	1	7051

Daily

 15th Percentile:
 37 MPH

 50th Percentile:
 43 MPH

 85th Percentile:
 48 MPH

 95th Percentile:
 50 MPH

 Mean Speed(Average):
 42 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4676

 Percent in Pace:
 66.3%

 Number of Vehicles > 40 MPH:
 4899

 Percent of Vehicles > 40 MPH:
 69.5%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	0	3	15	15	12	0	0	0	0	0	0	45
01:00	0	0	0	0	1	5	14	11	5	1	0	0	0	0	37
02:00	0	0	0	0	2	4	4	7	0	0	0	0	0	0	17
03:00	0	0	0	1	0	6	5	5	1	0	0	0	0	0	18
04:00	0	0	0	0	1	2	13	7	7	2	1	0	1	0	34
05:00	0	0	0	0	3	10	44	54	21	3	0	0	0	0	135
06:00	5	0	0	0	4	46	161	103	30	4	0	0	0	0	353
07:00	12	0	0	6	22	85	265	138	20	0	0	0	0	0	548
08:00	7	0	5	3	23	130	233	73	10	4	0	0	0	0	488
09:00	14	0	0	3	15	120	162	45	10	0	0	0	0	0	369
10:00	4	0	2	4	8	91	171	60	4	2	0	0	0	0	346
11:00	4	0	0	2	18	78	151	71	9	3	0	0	0	0	336
12 PM	4	0	1	10	20	75	169	72	8	2	0	0	0	0	361
13:00	9	0	0	3	18	97	158	71	12	3	1	0	0	0	372
14:00	5	0	1	1	24	128	192	98	22	3	0	0	0	0	474
15:00	13	0	0	9	32	157	222	63	7	1	0	0	0	0	504
16:00	13	0	1	5	9	145	255	122	23	4	0	0	0	0	577
17:00	21	0	0	2	11	164	263	126	22	2	1	0	0	0	612
18:00	4	0	0	1	8	102	206	78	16	0	0	0	0	0	415
19:00	2	0	0	1	12	82	137	57	13	2	0	0	0	0	306
20:00	0	0	0	3	8	72	101	47	6	1	0	0	0	0	238
21:00	4	0	0	0	21	47	78	29	7	0	0	0	0	0	186
22:00	0	0	0	1	7	33	45	30	9	0	0	1	0	0	126
23:00	0	0	0	0	2	30	31	20	5	11	0	11	0	0	90
Total	121	0	10	55	272	1724	3095	1399	267	38	3	2	1	0	6987

Daily

 15th Percentile:
 37 MPH

 50th Percentile:
 43 MPH

 85th Percentile:
 48 MPH

 95th Percentile:
 50 MPH

 Mean Speed(Average):
 42 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 4819

 Percent in Pace:
 69.0%

Percent in Pace : 69.0%

Number of Vehicles > 40 MPH : 4805

Percent of Vehicles > 40 MPH : 68.8%

Grand 255 6 3373 6122 2948 14 114 572 557 59 4 2 14038 11 1

Overall

 15th Percentile :
 37 MPH

 50th Percentile :
 43 MPH

 85th Percentile :
 48 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 42 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 9495

 Percent in Pace:
 67.6%

 Number of Vehicles > 40 MPH:
 9704

 Percent of Vehicles > 40 MPH:
 69.1%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, at Carver T/L

SB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	2	22	8	0	1	0	0	0	0	0	0	0	0	33	1
01:00	1	16	1	0	1	0	0	0	0	0	0	0	0	19	1
02:00	0	7	2	0	0	0	0	0	1	0	0	0	0	10	1
03:00	0	6	0	1	0	0	0	0	0	0	0	0	0	7	1
04:00	0	7	3	0	2	0	0	0	0	0	0	0	0	12	2
05:00	0	32	15	1	6	1	0	0	3	0	0	0	0	58	11
06:00	0	58	28	1	9	0	0	6	0	0	0	0	0	102	16
07:00	1	133	37	1	9	3	0	1	0	0	0	0	0	185	14
08:00	1	87	46	1	18	1	0	4	2	0	0	0	0	160	26
09:00	1	86	48	1	3	1	0	1	2	0	0	0	0	143	8
10:00	1	94	37	0	8	5	0	2	2	0	0	0	0	149	17
11:00	0	116	44	2	6	3	0	1	1	0	0	0	0	173	13
12 PM	1	127	43	0	3	6	0	2	2	0	0	0	0	184	13
13:00	8	102	37	0	8	2	0	1	2	0	0	0	0	160	13
14:00	0	140	59	2	4	2	0	1	1	0	0	0	0	209	10
15:00	10	240	72	3	10	2	1	3	3	0	0	0	0	344	22
16:00	10	252	84	1	18	1	0	2	0	0	0	0	0	368	22
17:00	4	242	63	0	8	0	0	2	0	0	0	0	0	319	10
18:00	3	184	28	0	9	0	0	1	0	0	0	0	0	225	10
19:00	4	127	30	0	2	0	0	0	0	0	0	0	0	163	2
20:00	4	116	27	0	1	0	0	0	0	0	0	0	0	148	1
21:00	1	91	23	1	0	0	0	0	0	0	0	0	0	116	1
22:00	0	71	16	0	2	0	0	1	0	0	0	0	0	90	3
23:00	2	46	9	0	2	0	0	0	0	0	0	0	0	59	2
Total	54	2402	760	15	130	27	1	28	19	0	0	0	0	3436	220
Percent	1.6%	69.9%	22.1%	0.4%	3.8%	0.8%	0.0%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	07.00	6.4%
AM Peak	00:00	07:00	09:00	11:00	08:00	10:00		06:00	05:00					07:00	08:00
Vol. PM Peak	15:00	133 16:00	48 16:00	15:00	18 16:00	12:00	15:00	6 15:00	<u>3</u> 15:00					185 16:00	26 15:00
Vol.	15:00	252	84	15:00	18:00	12:00	15:00	15:00	15:00					368	22
VOI.	10	232	04	3	10	0	'	3	3					300	22

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

Date End: 27-May-10 Federal Furnace Rd, at Carver T/0

SB															
Start Time	Bikes	Cars & Trailers	2 Axle	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
5/27/10	DIKES	21	Long 7	0	2	Sirigie 0	Sirigle 0	0	0	0 Double	0	0	0	31	10tai2
01:00	1	20	5	0	0	0	0	0	0	0	0	0	0	26	0
02:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10	1
03:00	0	10	1	Ő	0	0	0	0	0	0	0	0	Ö	11	0
04:00	0	5	2	0	3	0	0	0	0	0	0	0	0	10	3
05:00	0	23	14	1	3	1	0	0	1	0	0	0	0	43	6
06:00	0	69	23	1	5	1	0	3	2	0	0	0	0	104	12
07:00	1	136	33	1	6	3	0	1	2	0	0	0	0	183	13
08:00	2	112	42	1	12	3	0	1	4	0	0	0	0	177	21
09:00	0	95	36	0	7	3	0	1	2	0	0	0	0	144	13
10:00	4	107	32	3	8	3	1	2	2	1	0	0	0	163	20
11:00	0	98	39	4	9	3	0	1	1	0	0	0	0	155	18
12 PM	0	97	46	1	4	6	0	0	1	0	0	0	0	155	12
13:00	0	112	51	1	11	2	0	1	0	0	0	0	0	178	15
14:00	3	146	58	2	11	2	0	1	1	0	0	0	0	224	17
15:00	0	211	46	2	9	2	0	1	1	0	0	0	0	272	15
16:00	2	275	67	1	10	1	0	1	0	0	0	0	0	357	13
17:00	1	244	68	1	8	0	0	2	0	0	0	0	0	324	11
18:00	1	179	48	0	4	1	0	1	0	0	0	0	0	234	6
19:00	2	136	44	0	5	0	0	0	0	0	0	0	0	187	5
20:00	0	112	35	0	2	0	0	1	0	0	0	0	0	150	3
21:00	2	98	16	0	2	0	0	0	0	0	0	0	0	118	2
22:00	0	62	15	0	0	0	0	0	0	0	0	0	0	77	0
23:00	0	49	12	0	1_	0	0	0	0	0	0	0	0	62	1
Total	20	2425	741	19	123	31	1	17	17	1	0	0	0	3395	209
Percent	0.6%	71.4%	21.8%	0.6%	3.6%	0.9%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%		6.2%
AM Peak	10:00	07:00	08:00	11:00	08:00	07:00	10:00	06:00	08:00	10:00				07:00	08:00
Vol.	4 4.00	136	42	4 4.00	12	12:00	1_	47:00	42.00	1				183	21
PM Peak Vol.	14:00 3	16:00 275	17:00 68	14:00 2	13:00 11	12:00 6		17:00 2	12:00 1					16:00 357	14:00 17
VOI.	3	215	00	2	- ''	0		2	'					337	17
Grand Total	74	4827	1501	34	253	58	2	45	36	1	0	0	0	6831	429
Percent	1.1%	70.7%	22.0%	0.5%	3.7%	0.8%	0.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%		6.3%

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, at Carver T/L

NB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	0	13	2	0	1	0	0	0	0	0	0	0	0	16	1
01:00	0	3	1	0	2	0	0	0	0	0	0	0	0	6	2
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0
03:00	0	5	2	1	0	0	0	0	0	0	0	0	0	8	1
04:00	1	11	3	0	3	0	0	0	0	0	0	0	0	18	3
05:00	1	52	22	0	6	0	0	1	1	0	0	0	0	83	8
06:00	3	177	61	1	26	1	0	0	1	0	0	0	0	270	29
07:00	4	220	69	1	22	0	1	6	0	0	0	0	0	323	30
08:00	1	221	65	4	19	1	1	1	3	0	0	0	0	316	29
09:00	4	158	62	0	16	2	1	4	2	0	0	0	0	249	25
10:00	1	127	53	4	13	3	0	1	0	0	0	0	0	202	21
11:00	4	115	54	2	11	2	0	1	1	0	0	0	0	190	17
12 PM	0	124	40	1	17	0	0	1	1	0	0	0	0	184	20
13:00	7	127	36	0	11	4	1	5	3	0	0	0	0	194	24
14:00	2	151	55	5	14	0	0	1	2	0	0	0	0	230	22
15:00	6	148	55	2	24	5	0	6	1	0	0	0	0	247	38
16:00	2	188	55	0	18	0	0	0	1	0	0	0	0	264	19
17:00	5	174	47	0	15	1	0	1	2	0	0	0	0	245	19
18:00	4	128	46	0	7	0	0	1	0	0	0	0	0	186	8
19:00	1	86	24	1	11	0	0	0	0	0	0	0	0	123	12
20:00	2	67	21	0	7	1	0	0	0	0	0	0	0	98	8
21:00	0	52	10	0	2	0	0	1	0	0	0	0	0	65	3
22:00	0	38	8	0	3	0	0	0	0	0	0	0	0	49	3
23:00	0	27	6	1_	0	0	0	0	0	0	0	0	0	34	1
Total	48	2417	798	23	248	20	4	30	18	0	0	0	0	3606	343
Percent	1.3%	67.0%	22.1%	0.6%	6.9%	0.6%	0.1%	0.8%	0.5%	0.0%	0.0%	0.0%	0.0%		9.5%
AM Peak	07:00	08:00	07:00	08:00	06:00	10:00	07:00	07:00	08:00					07:00	07:00
Vol.	4	221	69	4	26	3	1 1	6	3					323	30
PM Peak	13:00	16:00	14:00	14:00	15:00	15:00	13:00	15:00	13:00					16:00	15:00
Vol.	7	188	55	5	24	5	1	6	3					264	38

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, at Carver T/L

NR

NB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	0	12	1	0	1	0	0	0	0	0	0	0	0	14	1
01:00	1	6	3	0	1	0	0	0	0	0	0	0	0	11	1
02:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7	1
03:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7	1
04:00	0	15	4	0	5	0	0	0	0	0	0	0	0	24	5
05:00	0	53	24	1	14	0	0	0	0	0	0	0	0	92	15
06:00	0	169	58	1	18	0	0	0	2	0	0	0	0	248	21
07:00	1	256	78	1	24	1	0	1	1	1	0	0	0	364	29
08:00	0	222	58	2	19	1	1	3	4	0	0	0	0	310	30
09:00	2	156	48	2	10	3	0	2	1	0	0	0	0	224	18
10:00	0	121	35	1	15	6	0	2	2	0	0	0	0	182	26
11:00	0	108	50	2	14	3	0	2	0	0	0	0	0	179	21
12 PM	1	137	45	4	16	0	0	1	2	0	0	0	0	206	23
13:00	1	126	41	1	14	6	0	2	2	0	0	0	0	193	25
14:00	1	161	57	4	22	1	0	3	1	0	0	0	0	250	31
15:00	0	150	58	3	17	0	0	2	1	0	0	0	0	231	23
16:00	2	147	45	1	17	0	0	5	2	0	0	0	0	219	25
17:00	1	208	60	0	12	2	0	2	3	0	0	0	0	288	19
18:00	2	119	40	1	9	3	0	5	0	0	0	0	0	179	18
19:00	0	79	33	0	3	0	0	3	1	0	0	0	0	119	7
20:00	0	62	23	0	3	0	0	0	0	0	0	0	0	88	3
21:00	1	47	20	0	0	0	0	0	0	0	0	0	0	68	0
22:00	2	36	9	0	1	0	0	1	0	0	0	0	0	49	2
23:00	0	23	5_	0	0	0	0	0	0	0	0	0	0	28	0
Total	15	2423	797	24	237	26	1	34	22	1	0	0	0	3580	345
Percent	0.4%	67.7%	22.3%	0.7%	6.6%	0.7%	0.0%	0.9%	0.6% 08:00	0.0%	0.0%	0.0%	0.0%	07.00	9.6%
AM Peak Vol.	09:00 2	07:00 256	07:00 78	08:00 2	07:00 24	10:00 6	08:00	08:00 3	08:00 4	07:00				07:00 364	08:00 30
PM Peak	16:00	17:00	17:00	12:00	14:00	13:00	<u> </u>	16:00	17:00	<u> </u>				17:00	14:00
Vol.	2	208	60	4	22	6		5	3					288	31
voi.	2	200	00	7		0		3	3					200	01
Grand	00	40.40	4505	47	405	40	_	0.4	40		0	0	0	7400	000
Total	63	4840	1595	47	485	46	5	64	40	1	0	0	0	7186	688
Percent	0.9%	67.4%	22.2%	0.7%	6.7%	0.6%	0.1%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%		9.6%

Station ID:

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, at Carver T/L

SB, NB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	2	35	10	0	2	0	0	0	0	0	0	0	0	49	2
01:00	1	19	2	0	3	0	0	0	0	0	0	0	0	25	3
02:00	0	12	3	0	0	0	0	0	1	0	0	0	0	16	1
03:00	0	11	2	2	0	0	0	0	0	0	0	0	0	15	2
04:00	1	18	6	0	5	0	0	0	0	0	0	0	0	30	5
05:00	1	84	37	1	12	1	0	1	4	0	0	0	0	141	19
06:00	3	235	89	2	35	1	0	6	1	0	0	0	0	372	45
07:00	5	353	106	2	31	3	1	7	0	0	0	0	0	508	44
08:00	2	308	111	5	37	2	1	5	5	0	0	0	0	476	55
09:00	5	244	110	1	19	3	1	5	4	0	0	0	0	392	33
10:00	2	221	90	4	21	8	0	3	2	0	0	0	0	351	38
11:00	4	231	98	4	17	5	0	2	2	0	0	0	0	363	30
12 PM	1	251	83	1	20	6	0	3	3	0	0	0	0	368	33
13:00	15	229	73	0	19	6	1	6	5	0	0	0	0	354	37
14:00	2	291	114	7	18	2	0	2	3	0	0	0	0	439	32
15:00	16	388	127	5	34	7	1	9	4	0	0	0	0	591	60
16:00	12	440	139	1	36	1	0	2	1	0	0	0	0	632	41
17:00	9	416	110	0	23	1	0	3	2	0	0	0	0	564	29
18:00	7	312	74	0	16	0	0	2	0	0	0	0	0	411	18
19:00	5	213	54	1	13	0	0	0	0	0	0	0	0	286	14
20:00	6	183	48	0	8	1	0	0	0	0	0	0	0	246	9
21:00	1	143	33	1	2	0	0	1	0	0	0	0	0	181	4
22:00	0	109	24	0	5	0	0	1	0	0	0	0	0	139	6
23:00	2	73	15	1	2	0	0	0	0	0	0	0	0	93	3
Total	102	4819	1558	38	378	47	5	58	37	0	0	0	0	7042	563
Percent	1.4%	68.4%	22.1%	0.5%	5.4%	0.7%	0.1%	0.8%	0.5%	0.0%	0.0%	0.0%	0.0%		8.0%
AM Peak	07:00	07:00	08:00	08:00	08:00	10:00	07:00	07:00	08:00					07:00	08:00
Vol.	5	353	111	5_	37	8	1_	7	5					508	55_
PM Peak	15:00	16:00	16:00	14:00	16:00	15:00	13:00	15:00	13:00					16:00	15:00
Vol.	16	440	139	7	36	7	1	9	5					632	60

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #16 Tube Layout: L6 Basic (2')

Percent

1.0%

69.0%

22.1%

0.6%

5.3%

0.7%

0.0%

0.8%

0.5%

0.0%

0.0%

0.0%

0.0%

8.0%

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, at Carver T/L

SB, NB					0.4.1	0.4.1	4 4 1			0.4.1	0.4.1	0.4.1			- .
Start	D.1	Cars &	2 Axle	-	2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle	>6 Axl	.	Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	1	33	8	0	3	0	0	0	0	0	0	0	0	45	3
01:00	2	26	8	0	1	0	0	0	0	0	0	0	0	37	1
02:00	0	13 15	2	0	2	0	0	0	0	0	0	0	0	17 18	2
03:00	0		2	0	•	0	-	0	0	0	0	0	0	-	
04:00 05:00	0	20 76	6 38	0	8 17	0	0	0	0	0	0	0	0	34 135	8 21
06:00	0	238	38 81	2	23	1	0	3	4	0	0	0	0	352	33
									•	1					
07:00	2	392	111	2	30	4	0	2	3	•	0	0	0	547	42
08:00	2	334	100	3	31	4	1	4	8	0	0	0	0	487	51
09:00	2	251	84	2	17	6	0	3	3	0	0	0	0	368	31
10:00	4	228	67	4	23	9	1	4	4	1	0	0	0	345	46
11:00	0	206	89	6	23	6	0	3	1	0	0	0	0	334	39
12 PM	1	234	91	5	20	6	0	1	3	0	0	0	0	361	35
13:00	1	238	92	2	25	8	0	3	2	0	0	0	0	371	40
14:00	4	307	115	6	33	3	0	4	2	0	0	0	0	474	48
15:00	0	361	104	5	26	2	0	3	2	0	0	0	Ö	503	38
16:00	4	422	112	2	27	1	0	6	2	0	0	0	0	576	38
17:00	2	452	128	1	20	2	0	4	3	0	0	0	0	612	30
18:00	3	298	88	1	13	4	0	6	0	0	0	0	0	413	24
19:00	2	215	77	0	8	0	0	3	1	0	0	0	0	306	12
20:00	0	174	58	0	5	0	0	1	0	0	Ö	0	Ö	238	6
21:00	3	145	36	0	2	0	0	0	0	0	0	0	0	186	2
22:00	2	98	24	0	1	0	0	1	0	0	0	0	0	126	2
23:00	0	72	17	0	1	0	0	0	0	0	0	0	0	90	1
Total	35	4848	1538	43	360	57	2	51	39	2	0	0	0	6975	554
Percent	0.5%	69.5%	22.1%	0.6%	5.2%	0.8%	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%		7.9%
AM Peak	10:00	07:00	07:00	11:00	08:00	10:00	08:00	08:00	08:00	07:00				07:00	08:00
Vol.	4	392	111	6	31	9	1	4	8	1				547	51
PM Peak	14:00	17:00	17:00	14:00	14:00	13:00		16:00	12:00					17:00	14:00
Vol.	4	452	128	6	33	8		6	3					612	48
Grand	137	9667	3096	81	738	104	7	109	76	2	0	0	0	14017	1117
Total	4.00/	000.	22.40/	0.00/	F 20/	0.70/	0.00/	0.00/	0.50/	0.00/	0.00/	0.00/	0.00/		0.00/

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd,south of Black Cat Rd

Start	24-May	<i>'</i> -10	Τι	ıe	V	Ved	7	Γhu	F	ri	S	at	Su	n	Week Av	verage
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	ŇB
12:00 AM	*	*	*	*	45	19	42	19	*	*	*	*	*	*	44	1
01:00	*	*	*	*	20	5	34	13	*	*	*	*	*	*	27	(
02:00	*	*	*	*	13	7	15	8	*	*	*	*	*	*	14	8
03:00	*	*	*	*	9	9	12	6	*	*	*	*	*	*	10	8
04:00	*	*	*	*	12	20	10	26	*	*	*	*	*	*	11	23
05:00	*	*	*	*	51	117	36	128	*	*	*	*	*	*	44	122
06:00	*	*	*	*	116	329	110	308	*	*	*	*	*	*	113	318
07:00	*	*	*	*	214	439	220	453	*	*	*	*	*	*	217	446
08:00	*	*	*	*	305	392	307	430	*	*	*	*	*	*	306	411
09:00	*	*	*	*	232	386	223	332	*	*	*	*	*	*	228	359
10:00	*	*	*	*	195	269	221	270	*	*	*	*	*	*	208	270
11:00	*	*	*	*	258	264	251	277	*	*	*	*	*	*	254	270
12:00 PM	*	*	*	*	278	279	252	289	*	*	*	*	*	*	265	284
01:00	*	*	*	*	241	289	261	288	*	*	*	*	*	*	251	288
02:00	*	*	*	*	300	291	324	323	*	*	*	*	*	*	312	307
03:00	*	*	*	*	455	359	413	382	*	*	*	*	*	*	434	370
04:00	*	*	*	*	486	391	512	291	*	*	*	*	*	*	499	341
05:00	*	*	*	*	444	309	465	324	*	*	*	*	*	*	454	316
06:00	*	*	*	*	308	241	359	322	*	*	*	*	*	*	334	282
07:00	*	*	*	*	224	193	262	204	*	*	*	*	*	*	243	198
08:00	*	*	*	*	223	137	223	144	*	*	*	*	*	*	223	140
09:00	*	*	*	*	178	93	177	104	*	*	*	*	*	*	178	98
10:00	*	*	*	*	109	71	119	57	*	*	*	*	*	*	114	64
11:00	*	*	*	*	77	38	87	40	*	*	*	*	*	*	82	39
Total	0	0	0	0	4793	4947	4935	5038	0	0	0	0	0	0	4865	4990
Day	0		0		97	40	99	73	0		0		0		9855	
AM Peak					08:00	07:00	08:00	07:00							08:00	07:00
Vol.					305	439	307	453							306	446
PM Peak					16:00	16:00	16:00	15:00							16:00	15:00
Vol.					486	391	512	382							499	370
Comb. Total		0		0		9740		9973		0		0		0		9855

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd,south of Black Cat Rd

Start Time	24-May-10 Mon	25-May-10 Tue	26-May-10 Wed	27-May-10 Thu	28-May-10 Fri	29-May-10 Sat	30-May-10 Sun	Week Average
12:00 AM	*	*	64	61	*	*	*	62
01:00	*	*	25	47	*	*	*	36
02:00	*	*	20	23	*	*	*	22
03:00	*	*	18	18	*	*	*	18
04:00	*	*	32	36	*	*	*	34
05:00	*	*	168	164	*	*	*	166
06:00	*	*	445	418	*	*	*	432
07:00	*	*	653	673	*	*	*	663
08:00	*	*	697	737	*	*	*	717
09:00	*	*	618	555	*	*	*	586
10:00	*	*	464	491	*	*	*	478
11:00	*	*	522	528	*	*	*	525
12:00 PM	*	*	557	541	*	*	*	549
01:00	*	*	530	549	*	*	*	540
02:00	*	*	591	647	*	*	*	619
03:00	*	*	814	795	*	*	*	804
04:00	*	*	877	803	*	*	*	840
05:00	*	*	753	789	*	*	*	771
06:00	*	*	549	681	*	*	*	615
07:00	*	*	417	466	*	*	*	442
08:00	*	*	360	367	*	*	*	364
09:00	*	*	271	281	*	*	*	276
10:00	*	*	180	176	*	*	*	178
11:00	*	*	115	127	*	*	*	121
Total	0	0	9740	9973	0	0	0	9858
Percentage	0.0%	0.0%	98.8%	101.2%	0.0%	0.0%	0.0%	
AM Peak			08:00	08:00				08:00
Vol.			697	737				717
PM Peak			16:00	16:00				16:00
Vol.			877	803				840

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd, south of Black Cat Rd

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	1	7	13	13	9	2	0	0	0	0	45
01:00	0	0	0	0	0	1	9	5	3	1	1	0	0	0	20
02:00	0	0	0	0	0	0	5	5	3	0	0	0	0	0	13
03:00	0	0	0	1	0	1	3	3	1	0	0	0	0	0	9
04:00	0	0	0	0	0	1	1	4	5	1	0	0	0	0	12
05:00	0	0	0	0	1	0	6	20	19	4	0	1	0	0	51
06:00	2	0	0	0	2	10	33	41	23	5	0	0	0	0	116
07:00	16	0	0	1	2	25	69	63	32	5	1	0	0	0	214
08:00	16	0	0	0	5	40	103	111	25	5	0	0	0	0	305
09:00	9	0	0	0	5	26	86	69	34	2	0	1	0	0	232
10:00	5	1	0	0	0	17	86	57	25	4	0	0	0	0	195
11:00	6	0	0	0	5	16	93	102	33	2	0	1	0	0	258
12 PM	9	0	0	0	0	30	93	104	32	9	1	0	0	0	278
13:00	9	0	1	0	2	17	74	96	34	6	2	0	0	0	241
14:00	7	0	0	0	5	29	95	104	58	1	0	1	0	0	300
15:00	13	0	1	0	1	49	179	146	55	9	1	1	0	0	455
16:00	17	0	0	0	0	36	155	185	80	11	2	0	0	0	486
17:00	16	0	0	0	3	17	129	195	74	10	0	0	0	0	444
18:00	4	0	1	1	2	41	105	90	51	10	2	0	0	1	308
19:00	5	0	0	0	1	15	79	76	41	4	3	0	0	0	224
20:00	1	0	0	0	8	25	92	76	18	3	0	0	0	0	223
21:00	2	1	5	12	17	34	60	34	11	2	0	0	0	0	178
22:00	1	0	7	7	11	19	35	21	7	0	1	0	0	0	109
23:00	1	0	0	0	0	11	31	23	8	2	1	0	0	0	77
Total	139	2	15	22	71	467	1634	1643	681	98	15	5	0	1	4793

Daily

41 MPH 46 MPH 51 MPH 15th Percentile : 50th Percentile: 85th Percentile : 95th Percentile: 55 MPH

45 MPH

Mean Speed(Average):
10 MPH Pace Speed:
Number in Pace:
Percent in Pace:
Number of Vehicles > 35 MPH:
Percent of Vehicles > 35 MPH: 45 MPH 41-50 MPH 3277 68.4% 4544 94.8%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd,south of Black Cat Rd

\sim	D
J	D

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	1	0	7	14	12	6	1	0	1	0	0	42
01:00	0	0	0	1	1	5	7	14	4	2	0	0	0	0	34
02:00	0	0	0	0	1	2	6	3	3	0	0	0	0	0	15
03:00	0	0	0	0	0	2	5	2	2	1	0	0	0	0	12
04:00	1	0	0	0	0	0	0	4	1	3	0	0	1	0	10
05:00	0	0	0	1	0	1	6	8	15	4	1	0	0	0	36
06:00	6	0	0	0	7	14	22	32	21	7	1	0	0	0	110
07:00	4	0	0	0	0	11	66	97	35	6	0	0	0	1	220
08:00	11	0	0	0	1	34	112	112	32	5	0	0	0	0	307
09:00	7	0	1	0	9	35	77	69	20	2	3	0	0	0	223
10:00	6	0	0	0	13	23	72	86	18	2	1	0	0	0	221
11:00	6	0	0	0	1	34	90	90	28	2	0	0	0	0	251
12 PM	6	0	0	0	3	22	82	97	36	6	0	0	0	0	252
13:00	10	0	0	1	1	19	95	101	24	9	1	0	0	0	261
14:00	7	0	0	4	10	25	91	123	55	9	0	0	0	0	324
15:00	9	0	0	0	8	37	153	158	41	5	1	1	0	0	413
16:00	16	0	3	5	16	53	188	179	46	4	1	1	0	0	512
17:00	12	0	4	5	3	42	165	184	46	3	1	0	0	0	465
18:00	11	0	1	0	3	27	140	139	33	5	0	0	0	0	359
19:00	8	0	0	0	7	25	93	84	38	7	0	0	0	0	262
20:00	0	0	0	0	0	33	100	69	18	3	0	0	0	0	223
21:00	1	0	0	0	6	37	63	54	14	2	0	0	0	0	177
22:00	0	1	4	2	1	30	43	31	5	1	0	0	0	1	119
23:00	0	0	0	1	2	6	37	27	13	1	0	0	0	0	87
Total	121	1	13	21	93	524	1727	1775	554	90	10	3	1	2	4935

Daily

15th Percentile : 40 MPH 50th Percentile : 45 MPH 85th Percentile : 50 MPH 95th Percentile : 54 MPH

 Mean Speed(Average):
 45 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 3502

 Percent in Pace:
 71.0%

 Number of Vehicles > 35 MPH:
 4686

 Percent of Vehicles > 35 MPH:
 95.0%

Grand 260 3 28 991 3361 3418 1235 9728 43 164 188 25 8 1 3

Overall

 15th Percentile :
 40 MPH

 50th Percentile :
 46 MPH

 85th Percentile :
 51 MPH

 95th Percentile :
 54 MPH

 Mean Speed(Average):
 45 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 6779

 Percent in Pace:
 69.7%

 Number of Vehicles > 35 MPH:
 9230

 Percent of Vehicles > 35 MPH:
 94.9%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd,south of Black Cat Rd

NB

110															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	0	6	7	6	0	0	0	0	0	0	19
01:00	0	0	0	0	1	1	2	1	0	0	0	0	0	0	5
02:00	0	0	0	0	1	1	4	0	1	0	0	0	0	0	7
03:00	0	0	0	0	1	0	5	1	2	0	0	0	0	0	9
04:00	0	0	0	0	0	1	7	5	7	0	0	0	0	0	20
05:00	1	0	0	0	1	14	46	49	6	0	0	0	0	0	117
06:00	3	0	0	1	4	68	163	77	13	0	0	0	0	0	329
07:00	15	0	9	8	12	96	211	78	9	1	0	0	0	0	439
08:00	14	0	0	1	15	97	222	38	3	2	0	0	0	0	392
09:00	13	0	0	1	18	128	190	35	1	0	0	0	0	0	386
10:00	7	0	0	2	8	59	139	47	6	1	0	0	0	0	269
11:00	8	0	0	0	7	62	144	40	2	1	0	0	0	0	264
12 PM	6	0	0	0	6	50	161	56	0	0	0	0	0	0	279
13:00	10	0	0	1	6	77	142	45	8	0	0	0	0	0	289
14:00	8	0	1	1	1	55	154	68	3	0	0	0	0	0	291
15:00	16	0	0	0	20	73	185	54	11	0	0	0	0	0	359
16:00	32	0	0	0	1	80	204	71	3	0	0	0	0	0	391
17:00	19	0	0	0	0	42	160	84	3	0	1	0	0	0	309
18:00	7	0	0	1	2	72	111	39	9	0	0	0	0	0	241
19:00	7	0	0	0	4	56	88	34	2	1	1	0	0	0	193
20:00	3	0	0	1	4	45	65	19	0	0	0	0	0	0	137
21:00	2	0	0	4	20	32	32	3	0	0	0	0	0	0	93
22:00	0	1	7	6	10	24	17	6	0	0	0	0	0	0	71
23:00	0	0	0	0	1	17	15	3	2	0	0	0	0	0	38
Total	171	1	17	27	143	1156	2474	859	91	6	2	0	0	0	4947

Daily

 15th Percentile :
 37 MPH

 50th Percentile :
 42 MPH

 85th Percentile :
 47 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 3630

 Percent in Pace:
 73.4%

 Number of Vehicles > 35 MPH:
 4588

 Percent of Vehicles > 35 MPH:
 92.7%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd,south of Black Cat Rd

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	1	2	7	5	4	0	0	0	0	0	0	19
01:00	0	0	0	0	1	2	6	2	1	1	0	0	0	0	13
02:00	0	0	0	0	0	2	5	0	1	0	0	0	0	0	8
03:00	0	0	0	0	0	3	1	2	0	0	0	0	0	0	6
04:00	0	0	0	0	0	2	8	12	3	1	0	0	0	0	26
05:00	0	0	0	0	2	20	69	29	8	0	0	0	0	0	128
06:00	3	0	0	2	5	65	146	72	14	1	0	0	0	0	308
07:00	11	0	0	0	4	85	270	75	8	0	0	0	0	0	453
08:00	25	0	1	1	14	103	247	39	0	0	0	0	0	0	430
09:00	11	1	0	2	7	102	164	41	4	0	0	0	0	0	332
10:00	9	0	0	1	6	83	141	29	1	0	0	0	0	0	270
11:00	4	1	4	1	6	66	159	31	5	0	0	0	0	0	277
12 PM	8	0	0	0	8	54	166	47	5	1	0	0	0	0	289
13:00	8	0	0	1	5	48	150	69	7	0	0	0	0	0	288
14:00	7	1	3	0	7	72	172	54	7	0	0	0	0	0	323
15:00	11	0	0	0	32	93	159	73	12	2	0	0	0	0	382
16:00	17	0	1	0	7	70	123	65	8	0	0	0	0	0	291
17:00	12	0	1	2	3	73	166	63	3	1	0	0	0	0	324
18:00	17	1	2	1	5	75	166	52	3	0	0	0	0	0	322
19:00	7	0	0	0	5	45	99	45	3	0	0	0	0	0	204
20:00	4	0	0	0	5	35	71	26	3	0	0	0	0	0	144
21:00	1	0	0	0	6	33	40	22	2	0	0	0	0	0	104
22:00	0	0	0	0	3	16	18	16	4	0	0	0	0	0	57
23:00	0	0	0	0	2	8	21	8	1_	0	0	0	0	0	40
Total	155	4	12	12	135	1162	2572	876	103	7	0	0	0	0	5038

Daily

 15th Percentile :
 37 MPH

 50th Percentile :
 43 MPH

 85th Percentile :
 47 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 3734

 Percent in Pace:
 74.1%

 Number of Vehicles > 35 MPH:
 4720

 Percent of Vehicles > 35 MPH:
 93.7%

Grand 326 5 29 39 278 2318 1735 0 0 0 9985 5046 194 13 2

Overall

 15th Percentile :
 37 MPH

 50th Percentile :
 42 MPH

 85th Percentile :
 47 MPH

 95th Percentile :
 50 MPH

 Mean Speed(Average):
 41 MPH

 10 MPH Pace Speed:
 36-45 MPH

 Number in Pace:
 7364

 Percent in Pace:
 73.8%

 Number of Vehicles > 35 MPH:
 9308

 Percent of Vehicles > 35 MPH:
 93.2%

Station ID:

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Site Code: 239
Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd,south of Black Cat Rd

SB, NB

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/26/10	0	0	0	0	1	13	20	19	9	2	0	0	0	0	64
01:00	0	0	0	0	1	2	11	6	3	1	1	0	0	0	25
02:00	0	0	0	0	1	1	9	5	4	0	0	0	0	0	20
03:00	0	0	0	1	1	1	8	4	3	0	0	0	0	0	18
04:00	0	0	0	0	0	2	8	9	12	1	0	0	0	0	32
05:00	1	0	0	0	2	14	52	69	25	4	0	1	0	0	168
06:00	5	0	0	1	6	78	196	118	36	5	0	0	0	0	445
07:00	31	0	9	9	14	121	280	141	41	6	1	0	0	0	653
08:00	30	0	0	1	20	137	325	149	28	7	0	0	0	0	697
09:00	22	0	0	1	23	154	276	104	35	2	0	1	0	0	618
10:00	12	1	0	2	8	76	225	104	31	5	0	0	0	0	464
11:00	14	0	0	0	12	78	237	142	35	3	0	1	0	0	522
12 PM	15	0	0	0	6	80	254	160	32	9	1	0	0	0	557
13:00	19	0	1	1	8	94	216	141	42	6	2	0	0	0	530
14:00	15	0	1	1	6	84	249	172	61	1	0	1	0	0	591
15:00	29	0	1	0	21	122	364	200	66	9	1	1	0	0	814
16:00	49	0	0	0	1	116	359	256	83	11	2	0	0	0	877
17:00	35	0	0	0	3	59	289	279	77	10	1	0	0	0	753
18:00	11	0	1	2	4	113	216	129	60	10	2	0	0	1	549
19:00	12	0	0	0	5	71	167	110	43	5	4	0	0	0	417
20:00	4	0	0	1	12	70	157	95	18	3	0	0	0	0	360
21:00	4	1	5	16	37	66	92	37	11	2	0	0	0	0	271
22:00	1	1	14	13	21	43	52	27	7	0	1	0	0	0	180
23:00	1	0	0	0	1	28	46	26	10	2	1	0	0	0	115
Total	310	3	32	49	214	1623	4108	2502	772	104	17	5	0	1	9740

Daily

 15th Percentile:
 38 MPH

 50th Percentile:
 44 MPH

 85th Percentile:
 49 MPH

 95th Percentile:
 53 MPH

 Mean Speed(Average):
 43 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 6610

 Percent in Pace:
 67.9%

 Number of Vehicles > 35 MPH:
 9132

 Percent of Vehicles > 35 MPH:
 93.8%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10 Federal Furnace Rd,south of Black Cat Rd

CD	NID	

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
5/27/10	0	0	0	2	2	14	19	16	6	1	0	1	0	0	61
01:00	0	0	0	1	2	7	13	16	5	3	0	0	0	0	47
02:00	0	0	0	0	1	4	11	3	4	0	0	0	0	0	23
03:00	0	0	0	0	0	5	6	4	2	1	0	0	0	0	18
04:00	1	0	0	0	0	2	8	16	4	4	0	0	1	0	36
05:00	0	0	0	1	2	21	75	37	23	4	1	0	0	0	164
06:00	9	0	0	2	12	79	168	104	35	8	1	0	0	0	418
07:00	15	0	0	0	4	96	336	172	43	6	0	0	0	1	673
08:00	36	0	1	1	15	137	359	151	32	5	0	0	0	0	737
09:00	18	1	1	2	16	137	241	110	24	2	3	0	0	0	555
10:00	15	0	0	1	19	106	213	115	19	2	1	0	0	0	491
11:00	10	1	4	1	7	100	249	121	33	2	0	0	0	0	528
12 PM	14	0	0	0	11	76	248	144	41	7	0	0	0	0	541
13:00	18	0	0	2	6	67	245	170	31	9	1	0	0	0	549
14:00	14	1	3	4	17	97	263	177	62	9	0	0	0	0	647
15:00	20	0	0	0	40	130	312	231	53	7	1	1	0	0	795
16:00	33	0	4	5	23	123	311	244	54	4	1	1	0	0	803
17:00	24	0	5	7	6	115	331	247	49	4	1	0	0	0	789
18:00	28	1	3	1	8	102	306	191	36	5	0	0	0	0	681
19:00	15	0	0	0	12	70	192	129	41	7	0	0	0	0	466
20:00	4	0	0	0	5	68	171	95	21	3	0	0	0	0	367
21:00	2	0	0	0	12	70	103	76	16	2	0	0	0	0	281
22:00	0	1	4	2	4	46	61	47	9	1	0	0	0	1	176
23:00	0	0	0	11	4	14	58	35	14	11	0	0	0	0	127
Total	276	5	25	33	228	1686	4299	2651	657	97	10	3	11	2	9973

Daily

 15th Percentile:
 38 MPH

 50th Percentile:
 44 MPH

 85th Percentile:
 49 MPH

 95th Percentile:
 53 MPH

 Mean Speed(Average):
 43 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 6950

 Percent in Pace:
 69.7%

 Number of Vehicles > 35 MPH:
 9406

 Percent of Vehicles > 35 MPH:
 94.3%

Grand 586 8 57 3309 1429 201 19713 82 442 8407 5153 27 8 1 3

Overall

 15th Percentile :
 38 MPH

 50th Percentile :
 44 MPH

 85th Percentile :
 49 MPH

 95th Percentile :
 53 MPH

 Mean Speed(Average):
 43 MPH

 10 MPH Pace Speed:
 41-50 MPH

 Number in Pace:
 13560

 Percent in Pace:
 68.8%

 Number of Vehicles > 35 MPH:
 18538

 Percent of Vehicles > 35 MPH:
 94.0%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd,south of Black Cat Rd

SB													.,		
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	2	32	9	0	2	0	0	0	0	0	0	0	0	45	2
01:00	1	14	3	0	2	0	0	0	0	0	0	0	0	20	2
02:00	0	8	3	0	1	0	0	0	1	0	0	0	0	13	2
03:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0
04:00	0	4	5	0	2	0	0	1	0	0	0	0	0	12	3
05:00	0	18	17	2	12	0	0	0	2	0	0	0	0	51	16
06:00	1	53	26	3	26	1	0	5	1	0	0	0	0	116	36
07:00	0	119	60	3	28	1	0	2	0	0	0	0	0	213	34
08:00	0	134	103	10	46	3	1	5	2	0	0	0	0	304	67
09:00	1	103	87	4	28	6	0	1	2	0	0	0	0	232	41
10:00	1	94	64	1	27	6	0	0	2	0	0	0	0	195	36
11:00	0	126	90	3	34	3	0	1	1	0	0	0	0	258	42
12 PM	2	143	94	2	30	2	0	2	3	0	0	0	0	278	39
13:00	7	119	78	1	29	2	0	3	2	0	0	0	0	241	37
14:00	3	148	104	6	33	0	0	3	2	0	0	0	0	299	44
15:00	6	242	132	12	51	2	1	5	3	0	0	0	0	454	74
16:00	7	275	138	2	58	2	0	3	0	0	0	0	0	485	65
17:00	7	250	138	0	45	1	0	2	0	0	0	0	0	443	48
18:00	4	202	74	0	27	0	0	1	0	0	0	0	0	308	28
19:00	6	123	69	0	24	0	0	1	0	0	0	0	0	223	25
20:00	3	145	56	0	19	0	0	0	0	0	0	0	0	223	19
21:00	2	116	44	2	14	0	0	0	0	0	0	0	0	178	16
22:00	1	69	30	0	8	0	0	1	0	0	0	0	0	109	9
23:00	2	45	24	0	6	0	0	0	0	0	0	0	0	77	6_
Total	56	2590	1449	51	552	29	2	36	21	0	0	0	0	4786	691
Percent	1.2%	54.1%	30.3%	1.1%	11.5%	0.6%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%		14.4%
AM Peak	00:00	08:00	08:00	08:00	08:00	09:00	08:00	06:00	05:00					08:00	08:00
Vol.	2	134	103	10	46	6	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	2					304	67
PM Peak	13:00	16:00	16:00	15:00	16:00	12:00	15:00	15:00	12:00					16:00	15:00
Vol.	7	275	138	12	58	2	1	5	3					485	74

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10
Date End: 27-May-10
Federal Furnace Rd,south of Black Cat Rd

SB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 Axl		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	1	25	11	0	5	0	0	0	0	0	0	0	0	42	5
01:00	1	23	9	0	1	0	0	0	0	0	0	0	0	34	1
02:00	0	11	3	1	0	0	0	0	0	0	0	0	0	15	1
03:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12	1
04:00	0	3	3	1	3	0	0	0	0	0	0	0	0	10	4
05:00	0	13	10	0	12	0	0	0	1	0	0	0	0	36	13
06:00	0	55	28	4	16	1	0	3	3	0	0	0	0	110	27
07:00	1	131	53	4	24	3	1	1	2	0	0	0	0	220	35
08:00	2	139	102	10	46	2	0	2	4	0	0	0	0	307	64
09:00	0	106	80	6	23	2	0	3	2	0	0	0	0	222	36
10:00	6	110	58	4	33	2	1	3	2	1	0	0	0	220	46
11:00	0	112	96	8	26	6	0	1	1	0	0	0	0	250	42
12 PM	0	125	86	7	25	4	0	3	1	0	0	0	0	251	40
13:00	0	136	80	5	33	2	0	4	1	0	0	0	0	261	45
14:00	2	159	104	5	50	1	0	1	1	0	0	0	0	323	58
15:00	0	218	126	10	51	4	0	3	1	0	0	0	0	413	69
16:00	3	308	141	2	53	1	0	3	0	0	0	0	0	511	59
17:00	5	257	152	3	39	1	0	7	1	0	0	0	0	465	51
18:00	3	202	111	1	40	1	0	1	0	0	0	0	0	359	43
19:00	1	149	86	0	25	0	0	1	0	0	0	0	0	262	26
20:00	2	125	64	1	27	2	0	2	0	0	0	0	0	223	32
21:00	2	120	42	1	12	0	0	0	0	0	0	0	0	177	13
22:00	1	81	30	1	5	0	0	1	0	0	0	0	0	119	7
23:00	0	61	19	0	7	0	0	0	0	0	0	0	0	87	7
Total	30	2678	1496	74	557	32	2	39	20	1	0	0	0	4929	725
Percent	0.6%	54.3%	30.4%	1.5%	11.3%	0.6%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%		14.7%
AM Peak	10:00	08:00	08:00	08:00	08:00	11:00	07:00	06:00	08:00	10:00				08:00	08:00
Vol.	6	139	102	10	46	6	1	3	4	1				307	64
PM Peak	17:00	16:00	17:00	15:00	16:00	12:00		17:00	12:00					16:00	15:00
Vol.	5	308	152	10	53	4		7	1					511	69
Grand Total	86	5268	2945	125	1109	61	4	75	41	1	0	0	0	9715	1416
Percent	0.9%	54.2%	30.3%	1.3%	11.4%	0.6%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%		14.6%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, south of Black Cat Rd

NB													,		
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/26/10	0	16	2	0	1	0	0	0	0	0	0	0	0	19	1
01:00	0	2	1	0	2	0	0	0	0	0	0	0	0	5	2
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0
03:00	0	5	3	1	0	0	0	0	0	0	0	0	0	9	1
04:00	0	15	3	0	2	0	0	0	0	0	0	0	0	20	2 7
05:00	2	81	27	1	4	0	0	1	1	0	0	0	0	117	
06:00	3	234	83	2	5	1	0	0	1	0	0	0	0	329	9
07:00	7	314	91	2	19	1	0	5	0	0	0	0	0	439	27
08:00	0	300	69	7	8	5	0	1	2	0	0	0	0	392	23
09:00	3	282	69	8	17	1	1	3	1	0	0	0	0	385	31
10:00	1	188	60	1	12	3	0	1	2	0	0	0	0	268	19
11:00	2	188	59	1	8	5	0	0	1	0	0	0	0	264	15
12 PM	0	213	56	1	5	1	0	0	2	0	0	0	0	278	9
13:00	1	214	48	3	11	5	1	4	2	0	0	0	0	289	26
14:00	0	210	63	3	9	3	0	2	1	0	0	0	0	291	18
15:00	6	247	66	9	17	6	0	4	3	0	0	0	0	358	39
16:00	2	302	70	1	12	0	0	1	1	0	0	0	0	389	15
17:00	3	240	50	0	10	1	0	1	3	0	0	0	0	308	15
18:00	5	184	47	0	3	0	0	1	0	0	0	0	0	240	4
19:00	3	148	37	1	3	0	0	0	0	0	0	0	0	192	4
20:00	2	104	26	0	5	0	0	0	0	0	0	0	0	137	5
21:00	0	72	18	0	1	1	0	1	0	0	0	0	0	93	3
22:00	0	56	12	0	3	0	0	0	0	0	0	0	0	71	3
23:00	0	32	4	1	11	0	0	0	0	0	0	0	0	38	2
Total	40	3654	964	42	158	33	2	25	20	0	0	0	0	4938	280
Percent	0.8%	74.0%	19.5%	0.9%	3.2%	0.7%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%		5.7%
AM Peak	07:00	07:00	07:00	09:00	07:00	08:00	09:00	07:00	08:00					07:00	09:00
Vol.	7	314	91	8	19	5	1_	5	2					439	31
PM Peak	15:00	16:00	16:00	15:00	15:00	15:00	13:00	13:00	15:00					16:00	15:00
Vol.	6	302	70	9	17	6	1	4	3					389	39

Station ID:

Old Colony Planning Council 70 School Street Brockton, MA 02301 508-583-1833

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, south of Black Cat Rd

NB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 AxI	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	0	18	1	0	0	0	0	0	0	0	0	0	0	19	0
01:00	1	8	3	0	1	0	0	0	0	0	0	0	0	13	1
02:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8	1
03:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6	1
04:00	1	17	5	0	3	0	0	0	0	0	0	0	0	26	3
05:00	0	84	31	2	11	0	0	0	0	0	0	0	0	128	13
06:00	0	222	75	3	5	2	0	0	1	0	0	0	0	308	11
07:00	0	344	86	1	19	0	0	1	1	1	0	0	0	453	23
08:00	2	328	67	5	17	3	1	2	4	0	0	0	0	429	32
09:00	1	240	70	7	7	5	0	2	0	0	0	0	0	332	21
10:00	1	186	57	0	14	7	0	2	3	0	0	0	0	270	26
11:00	0	208	50	4	7	6	0	2	0	0	0	0	0	277	19
12 PM	1	216	57	3	9	1	0	0	2	0	0	0	0	289	15
13:00	2	209	57	3	8	5	0	2	2	0	0	0	0	288	20
14:00	1	217	72	6	18	4	0	3	1	0	0	0	0	322	32
15:00	1	276	78	10	12	1	0	2	2	0	0	0	0	382	27
16:00	4	214	57	1	10	2	0	1	1	0	0	0	0	290	15
17:00	0	253	56	2	10	1	0	1	1	0	0	0	Ö	324	15
18:00	4	235	69	0	7	3	0	2	1	0	0	0	0	321	13
19:00	1	158	40	0	2	0	0	1	1	0	0	0	0	203	4
20:00	0	111	31	0	2	0	0	0	0	0	0	0	0	144	2
21:00	0	83	21	0	0	0	0	0	0	0	0	0	0	104	0
22:00	0	50	7	0	0	0	0	0	0	0	0	0	0	57	0
23:00	0	33	7	0	0	0	0	0	0	0	0	0	0	40	0
Total	20	3720	999	47	164	40	1	21	20	1	0	0	0	5033	294
Percent	0.4%	73.9%	19.8%	0.9%	3.3%	0.8%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%		5.8%
AM Peak	08:00	07:00	07:00	09:00	07:00	10:00	08:00	08:00	08:00	07:00				07:00	08:00
Vol.	2	344	86	7	19	7	1	2	4	1				453	32
PM Peak	16:00	15:00	15:00	15:00	14:00	13:00		14:00	12:00					15:00	14:00
Vol.	4	276	78	10	18	5		3	2					382	32
Grand						_									
Total	60	7374	1963	89	322	73	3	46	40	1	0	0	0	9971	574
Percent	0.6%	74.0%	19.7%	0.9%	3.2%	0.7%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%		5.8%

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

PM Peak Vol.

15:00 12

16:00 577

16:00 208

Station ID: Site Code: 239

874

113

Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, south of Black Cat Rd

SB, NB		Coro	O Ayle		O Avis	2 Ayla	4 4 4 -	-E AI	E Avis	. C A.:	-C Avi	C Ayle	- C Avl		Tauch
Start Time	Bikes	Cars & Trailers	2 Axle	Buses	2 Axle	3 Axle	4 Axle	<5 Axl	5 Axle	>6 Axl	<6 Axl	6 Axle Multi	>6 Axl	Total	Truck
5/26/10	DIKES 2	48	Long 11	ouses0	6 Tire	Single	Single 0	Double	Double	Double	Multi 0	0	Multi 0	10tai 64	Total 3
01:00	1	16	4	0	4	0	0	0	0	0	0	0	0	25	4
01:00	0	15	3	0	4	0	0	0	1	0	0	0	0	20	4
03:00	0	13	4	1	0	0	0	0	0	0	0	0	0	18	1
04:00	0	19	8	0	4	0	0	1	0	0	0	0	0	32	5
05:00	2	99	44	3	16	0	0	1	3	0	0	0	0	168	23
06:00	4	287	109	5	31	2	0	5	2	0	0	0	0	445	45
07:00	7	433	151	5	47	2	0	7	0	0	0	0	0	652	61
08:00	0	434	172	17	54	8	1	6	4	0	0	0	0	696	90
09:00	4	385	156	12	45	7	1	4	3	0	0	0	0	617	72
10:00	2	282	124	2	39	9	0	1	4	0	0	0	0	463	55
11:00	2	314	149	4	42	8	0	1	2	0	0	0	0	522	57
12 PM	2	356	150	3	35	3	0	2	5	0	0	0	0	556	48
13:00	8	333	126	4	40	7	1	7	4	0	0	0	0	530	63
14:00	3	358	167	9	42	3	0	5	3	0	0	0	0	590	62
15:00	12	489	198	21	68	8	1	9	6	0	0	0	0	812	113
16:00	9	577	208	3	70	2	0	4	1	0	0	0	0	874	80
17:00	10	490	188	0	55	2	0	3	3	0	0	0	0	751	63
18:00	9	386	121	0	30	0	0	2	0	0	0	0	0	548	32
19:00	9	271	106	1	27	0	0	1	0	0	0	0	0	415	29
20:00	5	249	82	0	24	0	0	0	0	0	0	0	0	360	24
21:00	2	188	62	2	15	1	0	1	0	0	0	0	0	271	19
22:00	1	125	42	0	11	0	0	1	0	0	0	0	0	180	12
23:00	2	77	28	1	7	0	0	0	0	0	0	0	0	115	8
Total	96	6244	2413	93	710	62	4	61	41	0	0	0	0	9724	971
Percent	1.0%	64.2%	24.8%	1.0%	7.3%	0.6%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%		10.0%
AM Peak	07:00	08:00	08:00	08:00	08:00	10:00	08:00	07:00	08:00					08:00	08:00
Vol.	7	434	172	17	54	9	1_	7	4					696	90
PM Peak	15:00	16:00	16:00	15:00	16:00	15:00	13:00	15:00	15:00					16:00	15:00

15:00 8

13:00

15:00 9

15:00 6

15:00 21

16:00 70

Community: Plymouth Com #_U/RFC: 239_U5 Recorder #: Jamar #10 Tube Layout: L6 Basic (2')

Station ID: Site Code: 239 Date Start: 26-May-10 Date End: 27-May-10

Federal Furnace Rd, south of Black Cat Rd

SB, NB															
Start		Cars &	2 Axle		2 Axle	3 Axle	4 Axle	<5 AxI	5 Axle	>6 AxI	<6 Axl	6 Axle	>6 AxI		Truck
Time	Bikes	Trailers	Long	Buses	6 Tire	Single	Single	Double	Double	Double	Multi	Multi	Multi	Total	Total
5/27/10	1	43	12	0	5	0	0	0	0	0	0	0	0	61	5
01:00	2	31	12	0	2	0	0	0	0	0	0	0	0	47	2
02:00	0	17	4	1	1	0	0	0	0	0	0	0	0	23	2
03:00	0	13	3	0	2	0	0	0	0	0	0	0	0	18	2
04:00	1	20	8	1	6	0	0	0	0	0	0	0	0	36	7
05:00	0	97	41	2	23	0	0	0	1	0	0	0	0	164	26
06:00	0	277	103	7	21	3	0	3	4	0	0	0	0	418	38
07:00	1	475	139	5	43	3	1	2	3	1	0	0	0	673	58
08:00	4	467	169	15	63	5	1	4	8	0	0	0	0	736	96
09:00	1	346	150	13	30	7	0	5	2	0	0	0	0	554	57
10:00	7	296	115	4	47	9	1	5	5	1	0	0	0	490	72
11:00	0	320	146	12	33	12	0	3	1	0	0	0	0	527	61
12 PM	1	341	143	10	34	5	0	3	3	0	0	0	0	540	55
13:00	2	345	137	8	41	7	0	6	3	0	0	0	0	549	65
14:00	3	376	176	11	68	5	0	4	2	0	0	0	0	645	90
15:00	1	494	204	20	63	5	0	5	3	0	0	0	0	795	96
16:00	7	522	198	3	63	3	0	4	1	0	0	0	0	801	74
17:00	5	510	208	5	49	2	0	8	2	0	0	0	0	789	66
18:00	7	437	180	1	47	4	0	3	1	0	0	0	0	680	56
19:00	2	307	126	0	27	0	0	2	1	0	0	0	Ö	465	30
20:00	2	236	95	1	29	2	0	2	0	0	0	0	0	367	34
21:00	2	203	63	1	12	0	0	0	0	0	0	0	0	281	13
22:00	1	131	37	1	5	0	0	1	0	0	0	0	0	176	7
23:00	0	94	26	0	7	0	0	0	0	0	0	0	0	127	7
Total	50	6398	2495	121	721	72	3	60	40	2	0	0	0	9962	1019
Percent	0.5%	64.2%	25.0%	1.2%	7.2%	0.7%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%		10.2%
AM Peak	10:00	07:00	08:00	08:00	08:00	11:00	07:00	09:00	08:00	07:00				08:00	08:00
Vol.	7	475	169	15	63	12	1_	5	8	1_				736	96
PM Peak Vol.	16:00 7	16:00 522	17:00 208	15:00 20	14:00 68	13:00 7		17:00 8	12:00 3					16:00 801	15:00 96
VOI.	,	522	208	20	80	/		8	3					001	90
Grand															
Total	146	12642	4908	214	1431	134	7	121	81	2	0	0	0	19686	1990
Percent	0.7%	64.2%	24.9%	1.1%	7.3%	0.7%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%		10.1%

Baystate Roads Program Local Technical Assistance Program (LTAP)

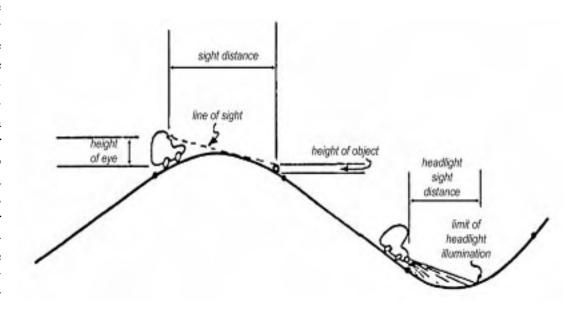
Tech Notes



Tech Note #35 -- 2004

Stopping-Sight Distance

"Sight distance is the length of the roadway ahead that is visible to the driver. The available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. Although greater lengths of visible roadway are desirable, the sight distance at every point along a roadway should be at least that



needed for a below-average driver or vehicle to stop." (1)

Stopping sight distance combines the brake reaction distance and the braking distance. That is, the distance a vehicle travels: (1) from the time an object is sighted to the time that the brakes are applied and (2) from the time the brakes are applied to the time that the vehicle comes to a stop.

The general equation for brake reaction distance is the following:

$$d = 1.47 V t$$

where:

d = brake reaction distance, ft

V = design speed, mph

t = brake reaction time, sec

It has been shown through research that a brake reaction time of 2.5 seconds is adequate for the majority of conditions, excluding the most complex, encountered when driving. This applies to all drivers, including inexperienced and elderly.

The braking distance takes into account vehicle deceleration rate and road design speed. These are combined into the following equation:

$$d = 1.075 \text{ V}^2/\text{a}$$

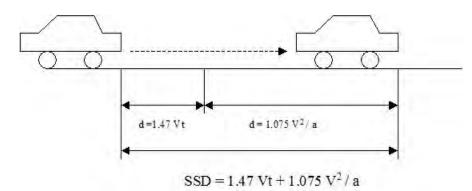
where:

d = braking distance, ft

V = design speed, mph

a = deceleration rate, 11.2 ft/s²

1 Tech Note #35



Combining the brake reaction distance and the braking distance as illustrated in the illustration to the right provides the following formula:

$$SSD = 1.47 V t + 1.075 V^2 / a$$

where:

SSD = stopping sight distance, ft

t = brake reaction time, 2.5 sec

V = design speed, mph

 $a = deceleration rate, 11.2 \text{ ft/s}^2$

This equation can be simplified greatly by simply substituting accepted values for brake reaction time and deceleration rate. As mentioned earlier, 2.5 seconds will be used for the brake reaction time. A deceleration rate of 11.2 ft/s² has been adopted by AASHTO for all drivers on dry roadways. The equation above includes two constants (1.47 & 1.075), as well. These constants take into account unit conversion rates and driver eye height and object height. "In computing and measuring stopping sight distances, the height of the driver's eye is estimated to be 3.5 feet and the height of

the object to be seen by the driver is 2.0 feet, equivalent to the tailgate height of a passenger car." (1)

With these substitutions, the formula can be cut down to:

$$SSD = 3.675 \text{ V} + .0960 \text{ V}^2$$

All that is required now is the vehicle speed! Take a roadway with a 30 mph design speed, for example. Plugging 30 mph into the above equation reveals:

SSD =
$$3.675 * (30) + .0960 * (30^2)$$

= $196.7 \text{ feet} = 200 \text{ feet}$

In this example, 200 feet is the stopping sight distance that should be available at all points on the roadway. In the case of a vehicle traveling 30 mph, it would take 200 feet for the vehicle to come to a complete stop after the driver has detected an object in the travel path. This has all been broken down in the table below, showing the relationship between the reaction, braking, and stopping sight distance.

Reference:

(1) From A Policy on Geometric Design of Highways and Streets 2001, 2001, American Association of State Highway and Transportation Officials, Washington, DC. Used by permission. Documents may be purchased from the AASHTO bookstore at 1-800-231-3475 or online at http://bookstore.transportation.org

Vehicle Speed (mph)	Reaction Distance (feet)	Braking Distance (feet)	Summed Distance (feet)	Stopping Sight Distance (feet)
15	55.1	21.6	76.7	80
20	73.5	38.4	111.9	115
.25	91.9	60.0	151.9	155
30	110.3	86.0	196.7	200
35	128.6	117.6	246.2	250
40	147.0	153.6	300.6	305
45	165.4	194.4	359.8	360
50	183.8	240.0	423.8	425
55	202.1	290.3	492.4	495

Exhibit 3-1. Stopping Sight Distance (1) Distances are for dry conditions and may change in future versions.

Tech Note #35

2009 Edition Page 731

TRAFFIC CONTROL FOR SCHOOL AREAS

CHAPTER 7A. GENERAL

Section 7A.01 Need for Standards

Support:

- Regardless of the school location, the best way to achieve effective traffic control is through the uniform application of realistic policies, practices, and standards developed through engineering judgment or studies.
- Pedestrian safety depends upon public understanding of accepted methods for efficient traffic control. This principle is especially important in the control of pedestrians, bicycles, and other vehicles in the vicinity of schools. Neither pedestrians on their way to or from school nor other road users can be expected to move safely in school areas unless they understand both the need for traffic controls and how these controls function for their benefit.
- Procedures and devices that are not uniform might cause confusion among pedestrians and other road users, prompt wrong decisions, and contribute to crashes. To achieve uniformity of traffic control in school areas, comparable traffic situations need to be treated in a consistent manner. Each traffic control device and control method described in Part 7 fulfills a specific function related to specific traffic conditions.
- A uniform approach to school area traffic controls assures the use of similar controls for similar situations, which promotes appropriate and uniform behavior on the part of motorists, pedestrians, and bicyclists.
- A school traffic control plan permits the orderly review of school area traffic control needs, and the coordination of school/pedestrian safety education and engineering measures. Engineering measures alone do not always result in the intended change in student and road user behavior.
- A school route plan for each school serving elementary to high school students should be prepared in order to develop uniformity in the use of school area traffic controls and to serve as the basis for a school traffic control plan for each school.
- The school route plan, developed in a systematic manner by the school, law enforcement, and traffic officials responsible for school pedestrian safety, should consist of a map (see Figure 7A-1) showing streets, the school, existing traffic controls, established school walk routes, and established school crossings.
- The type(s) of school area traffic control devices used, either warning or regulatory, should be related to the volume and speed of vehicular traffic, street width, and the number and age of the students using the crossing.
- School area traffic control devices should be included in a school traffic control plan.

Support:

- Reduced speed limit signs for school areas and crossings are included in this Manual solely for the purpose of standardizing signing for these zones and not as an endorsement of mandatory reduced speed zones.
- "School" and "school zone" are defined in Section 1A.13.

Section 7A.02 School Routes and Established School Crossings

- To establish a safer route to and from school for schoolchildren, the application of planning criterion for school walk routes might make it necessary for children to walk an indirect route to an established school crossing located where there is existing traffic control and to avoid the use of a direct crossing where there is no existing traffic control. Guidance:
- School walk routes should be planned to take advantage of existing traffic controls.
- The following factors should be considered when determining the feasibility of requiring children to walk a longer distance to a crossing with existing traffic control:
 - A. The availability of adequate sidewalks or other pedestrian walkways to and from the location with existing control,
 - B. The number of students using the crossing,
 - C. The age levels of the students using the crossing, and D. The total extra walking distance.

Section 7A.03 School Crossing Control Criteria

Support:

- The frequency of gaps in the traffic stream that are sufficient for student crossing is different at each crossing location. When the delay between the occurrences of adequate gaps becomes excessive, students might become impatient and endanger themselves by attempting to cross the street during an inadequate gap. In these instances, the creation of sufficient gaps needs to be considered to accommodate the crossing demand.
- A recommended method for determining the frequency and adequacy of gaps in the traffic stream is given in the "Traffic Control Devices Handbook" (see Section 1A.11).

December 2009 Sect. 7A.01 to 7A.03 Page 732 2009 Edition

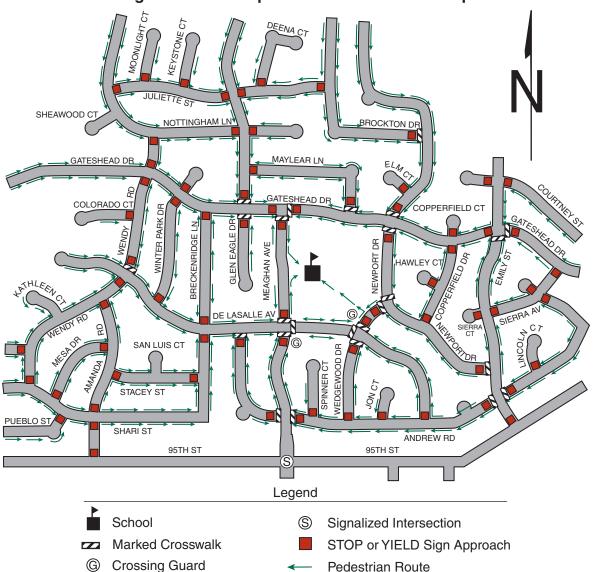


Figure 7A-1. Example of School Route Plan Map

Section 7A.04 Scope

Standard:

Part 7 sets forth basic principles and prescribes standards that shall be followed in the design, application, installation, and maintenance of all traffic control devices (including signs, signals, and markings) and other controls (including adult crossing guards) required for the special pedestrian conditions in school areas.

Support:

- Sections 1A.01 and 1A.08 contain information regarding unauthorized devices and messages. Sections 1A.02 and 1A.07 contain information regarding the application of standards. Section 1A.05 contains information regarding the maintenance of traffic control devices. Section 1A.08 contains information regarding placement authority for traffic control devices. Section 1A.09 contains information regarding engineering studies and the assistance that is available to jurisdictions that do not have engineers on their staffs who are trained and/or experienced in traffic control devices.
- Provisions contained in Chapter 2A and Section 2B.06 are applicable in school areas.
- Part 3 contains provisions regarding pavement markings that are applicable in school areas.
- Part 4 contains provisions regarding highway traffic signals that are applicable in school areas. The School Crossing signal warrant is described in Section 4C.06.

Sect. 7A.04 December 2009

2009 Edition Page 733

CHAPTER 7B. SIGNS

Section 7B.01 Size of School Signs

Standard:

Except as provided in Section 2A.11, the sizes of signs and plaques to be used on conventional roadways in school areas shall be as shown in Table 7B-1.

- The sizes in the Conventional Road column shall be used unless engineering judgment determines that a minimum or oversized sign size would be more appropriate.
- The sizes in the Minimum column shall be used only where traffic volumes are low and speeds are 30 mph or lower, as determined by engineering judgment.
- The sizes in the Oversized column shall be used on expressways.

Guidance:

The sizes in the Oversized column should be used on roadways that have four or more lanes with posted speed limits of 40 mph or higher.

Option:

- The sizes in the Oversized column may also be used at other locations that require increased emphasis, improved recognition, or increased legibility.
- of Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.11).

Table 7B-1. School Area Sign and Plaque Sizes

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
School	S1-1	7B.08	36 x 36	30 x 30	48 x 48
School Bus Stop Ahead	S3-1	7B.13	36 x 36	30 x 30	48 x 48
School Bus Turn Ahead	S3-2	7B.14	36 x 36	30 x 30	48 x 48
Reduced School Speed Limit Ahead	S4-5, S4-5a	7B.16	36 x 36	30 x 30	48 x 48
School Speed Limit XX When Flashing	S5-1	7B.15	24 x 48	_	36 x 72
End School Zone	S5-2	7B.09	24 x 30	_	36 x 48
End School Speed Limit	S5-3	7B.15	24 x 30	_	36 x 48
In-Street Ped Crossing	R1-6, R1-6a, R1-6b, R1-6c	7B.11, 7B.12	12 x 36	_	_
Speed Limit (School Use)	R2-1	7B.15	24 x 30	_	36 x 48
Begin Higher Fines Zone	R2-10	7B.10	24 x 30	_	36 x 48
End Higher Fines Zone	R2-11	7B.10	24 x 30	_	36 x 48

Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized	
X:XX to X:XX AM X:XX to X:XX PM	S4-1P	7B.15	24 x 10	_	36 x 18	
When Children Are Present	S4-2P	7B.15	24 x 10	_	36 x 18	
School	S4-3P	7B.09, 7B.15	24 x 8	_	36 x 12	
When Flashing	S4-4P	7B.15	24 x 10	_	36 x 18	
Mon-Fri	S4-6P	7B.15	24 x 10	_	36 x 18	
All Year	S4-7P	7B.09	24 x 12	_	30 x 18	
Fines Higher	R2-6P	7B.10	24 x 18	_	36 x 24	
XX Feet	W16-2P	7B.08	24 x 18	_	30 x 24	
XX Ft	W16-2aP	7B.08	24 x 12	_	30 x 18	
Turn Arrow	W16-5P	7B.08, 7B.09, 7B.11	24 x 12	_	30 x 18	
Advance Turn Arrow	W16-6P	7B.08, 7B.09, 7B.11	24 x 12	_	30 x 18	
Diagonal Arrow	W16-7P	7B.12	24 x 12	_	30 x 18	
Diagonal Arrow (optional size)	W16-7P	7B.12	21 x 15	_	_	
Ahead	W16-9P	7B.11	24 x 12	_	30 x 18	

Note: 1. Larger sizes may be used when appropriate

- 2. Dimensions are shown in inches and are shown as width x height
- 3. Minimum sign sizes for multi-lane conventional roads shall be as shown in the Conventional Road column

December 2009 Sect. 7B.01

Page 734 2009 Edition

Section 7B.02 Illumination and Reflectorization

Standard:

The signs used for school area traffic control shall be retroreflectorized or illuminated.

Section 7B.03 Position of Signs

Support:

- Sections 2A.16 and 2A.17 contain provisions regarding the placements and locations of signs.
- Section 2A.19 contains provisions regarding the lateral offsets of signs.

Option:

In-roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.12, 7B.08, and 7B.12.

Section 7B.04 Height of Signs

Support:

Section 2A.18 contains provisions regarding the mounting height of signs.

Section 7B.05 Installation of Signs

Support:

Section 2A.16 contains provisions regarding the installation of signs.

Section 7B.06 Lettering

Support:

The "Standard Highway Signs and Markings" book (see Section 1A.11) contains information regarding sign lettering.

Section 7B.07 Sign Color for School Warning Signs

Standard:

School warning signs, including the "SCHOOL" portion of the School Speed Limit (S5-1) sign and including any supplemental plaques used in association with these warning signs, shall have a fluorescent yellow-green background with a black legend and border unless otherwise provided in this Manual for a specific sign.

Section 7B.08 School Sign (S1-1) and Plaques

Support:

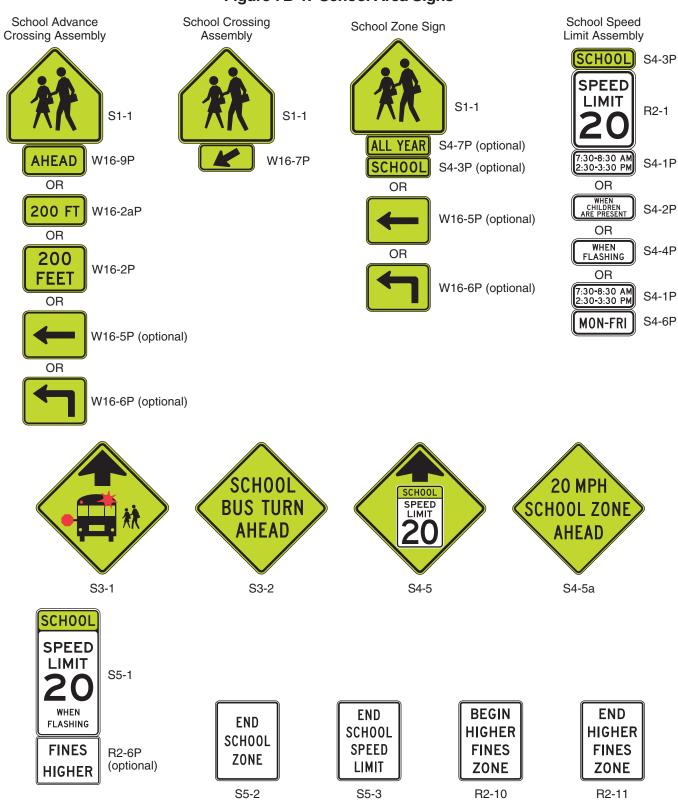
- Many state and local jurisdictions find it beneficial to advise road users that they are approaching a school that is adjacent to a highway, where additional care is needed, even though no school crossing is involved and the speed limit remains unchanged. Additionally, some jurisdictions designate school zones that have a unique legal standing in that fines for speeding or other traffic violations within designated school zones are increased or special enforcement techniques such as photo radar systems are used. It is important and sometimes legally necessary to mark the beginning and end points of these designated school zones so that the road user is given proper notice.
- The School (S1-1) sign (see Figure 7B-1) has the following four applications:
 - A. School Area the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
 - B. School Zone the S1-1 sign can be used to identify the location of the beginning of a designated school zone (see Section 7B.09).
 - C. School Advance Crossing if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly, the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.11).
 - D. School Crossing if combined with a diagonal downward pointing arrow (W16-7P) plaque to comprise the School Crossing assembly, the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.12).

Option:

If a school area is located on a cross street in close proximity to the intersection, a School (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school area soon after making the turn.

Sect. 7B.02 to 7B.08 December 2009

Figure 7B-1. School Area Signs



Page 736 2009 Edition

Section 7B.09 School Zone Sign (S1-1) and Plaques (S4-3P, S4-7P) and END SCHOOL ZONE Sign (S5-2)

Standard:

- If a school zone has been designated under State or local statute, a School (S1-1) sign (see Figure 7B-1) shall be installed to identify the beginning point(s) of the designated school zone (see Figure 7B-2).

 Option:
- A School Zone (S1-1) sign may be supplemented with a SCHOOL (S4-3P) plaque (see Figure 7B-1).
- A School Zone (S1-1) sign may be supplemented with an ALL YEAR (S4-7P) plaque (see Figure 7B-1) if the school operates on a 12-month schedule.
- The downstream end of a designated school zone may be identified with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).
- If a school zone is located on a cross street in close proximity to the intersection, a School Zone (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school zone soon after making the turn.

Section 7B.10 Higher Fines Zone Signs (R2-10, R2-11) and Plaques

Standard:

- Where increased fines are imposed for traffic violations within a designated school zone, a BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 7B-1) or a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 2B-3) shall be installed as a supplement to the School Zone (S1-1) sign to identify the beginning point of the higher fines zone (see Figures 7B-2 and 7B-3). Option:
- Where appropriate, one of the following plaques may be mounted below the sign that identifies the beginning point of the higher fines zone:
 - A. An S4-1P plaque (see Figure 7B-1) specifying the times that the higher fines are in effect,
 - B. A WHEN CHILDREN ARE PRESENT (S4-2P) plaque (see Figure 7B-1), or
 - C. A WHEN FLASHING (S4-4P) plaque (see Figure 7B-1) if used in conjunction with a yellow flashing beacon.

Standard:

Where a BEGIN HIGHER FINES ZONE (R2-10) sign or a FINES HIGHER (R2-6P) plaque supplementing a School Zone (S1-1) sign is posted to notify road users of increased fines for traffic violations, an END HIGHER FINES ZONE (R2-11) sign (see Figure 7B-1) or an END SCHOOL ZONE (S5-2) sign shall be installed at the downstream end of the zone to notify road users of the termination of the increased fines zone (see Figures 7B-2 and 7B-3).

Section 7B.11 School Advance Crossing Assembly

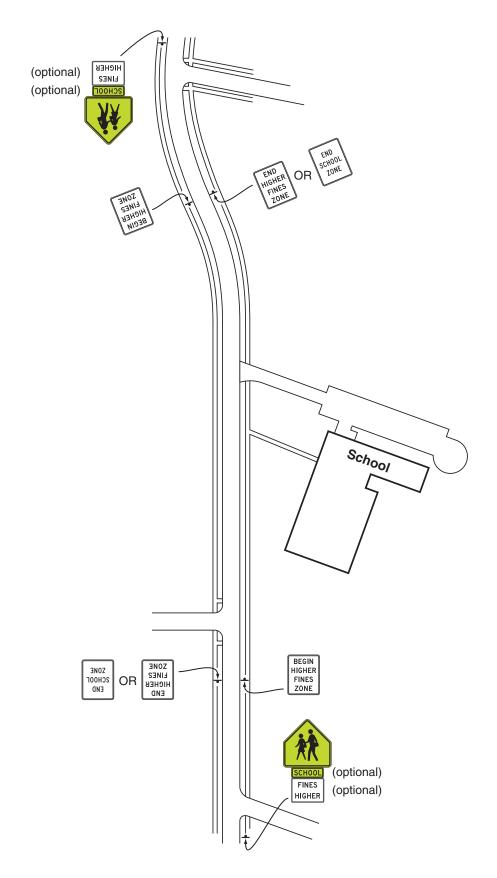
Standard:

- The School Advance Crossing assembly (see Figure 7B-1) shall consist of a School (S1-1) sign supplemented with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque.
- Except as provided in Paragraph 3, a School Advance Crossing assembly shall be used in advance (see Table 2C-4 for advance placement guidelines) of the first School Crossing assembly (see Section 7B.12) that is encountered in each direction as traffic approaches a school crosswalk (see Figure 7B-4).

 Option:
- The School Advance Crossing assembly may be omitted (see Figure 7B-5) where a School Zone (S1-1) sign (see Section 7B.09) is installed to identify the beginning of a school zone in advance of the School Crossing assembly.
- If a school crosswalk is located on a cross street in close proximity to an intersection, a School Advance Crossing assembly with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school crosswalk soon after making the turn.
- A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-6), installed in compliance with the mounting height and special mounting support requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12), may be used in advance of a school crossing to supplement the post-mounted school warning signs. A 12 x 6-inch reduced size AHEAD (W16-9P) plaque may be mounted below the reduced size in-street School (S1-1) sign.

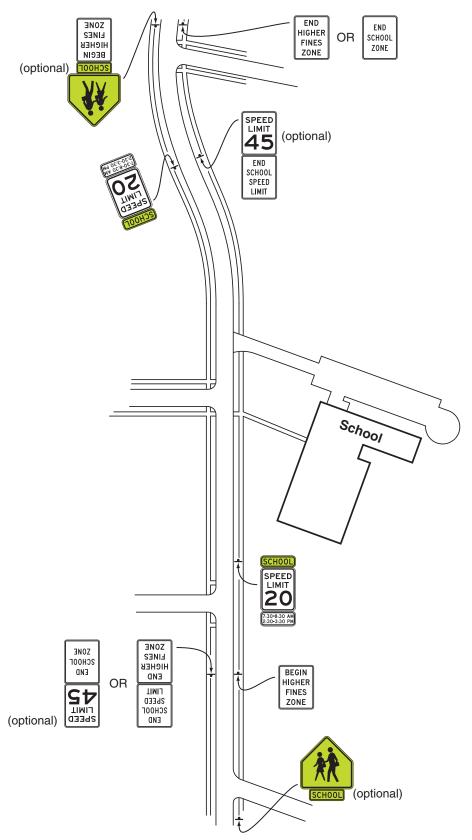
Sect. 7B.09 to 7B.11 December 2009

Figure 7B-2. Example of Signing for a Higher Fines School Zone without a School Crossing



Page 738 2009 Edition

Figure 7B-3. Example of Signing for a Higher Fines School Zone with a School Speed Limit



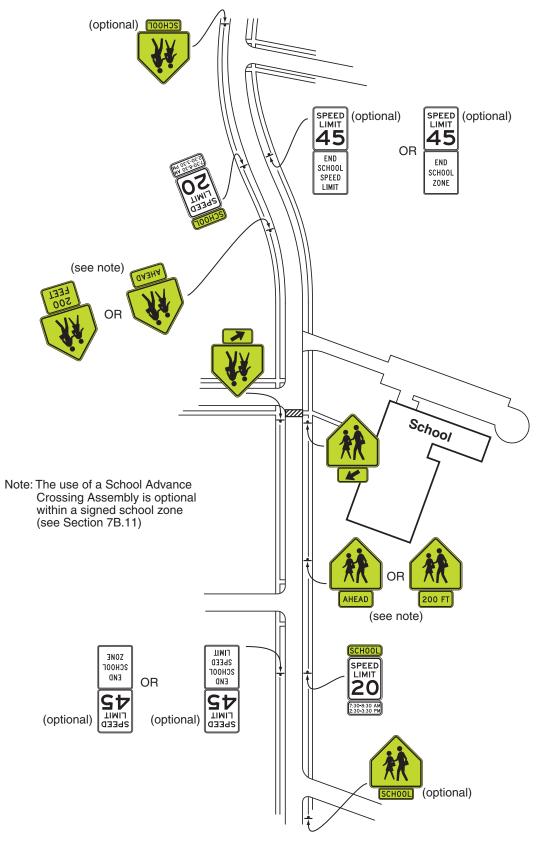
Sect. 7B.11 December 2009

Figure 7B-4. Example of Signing for a School Crossing Outside of a School Zone



Page 740 2009 Edition

Figure 7B-5. Example of Signing for a School Zone with a School Speed Limit and a School Crossing



Sect. 7B.11 December 2009

Figure 7B-6. In-Street Signs in School Areas

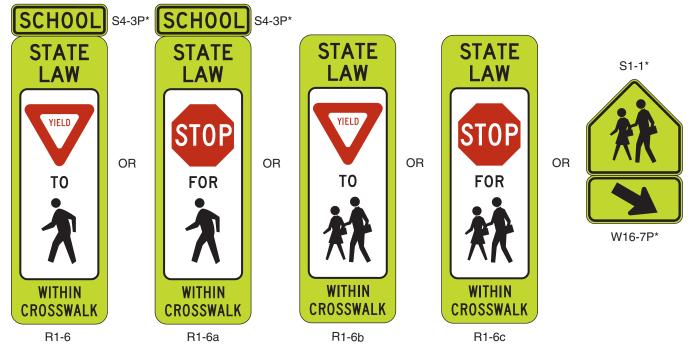
A - In advance of the school crossing



* Reduced size signs:

S1-1 12 x 12 inches S4-3P 12 x 4 inches W16-7P 12 x 6 inches W16-9P 12 x 6 inches

B - At the school crossing



Notes

- 1. The use of the STATE LAW legend is optional on the R1-6 series signs (see Section 7B.12).
- 2. The use of the SCHOOL plague above the R1-6 and R1-6a signs is optional.

Section 7B.12 School Crossing Assembly

Standard:

- If used, the School Crossing assembly (see Figure 7B-1) shall be installed at the school crossing (see Figures 7B-4 and 7B-5), or as close to it as possible, and shall consist of a School (S1-1) sign supplemented with a diagonal downward pointing arrow (W16-7P) plaque to show the location of the crossing.
- The School Crossing assembly shall not be used at crossings other than those adjacent to schools and those on established school pedestrian routes.
- The School Crossing assembly shall not be installed on approaches controlled by a STOP or YIELD sign.

Option:

The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.12 and Figure 7B-6) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign (see Figure 7B-6) may be used at unsignalized school crossings. If used at a school crossing, a 12 x 4-inch SCHOOL (S4-3P) plaque (see Figure 7B-6) may be mounted above the sign. The STATE LAW legend on the R1-6 series signs may be omitted.

Page 742 2009 Edition

The Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see Section 2B.12 and Figure 2B-2) may be modified to replace the standard pedestrian symbol with the standard schoolchildren symbol and may be used at unsignalized school crossings. The STATE LAW legend on the R1-9 series signs may be omitted.

A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-6) may be used at an unsignalized school crossing instead of the In-Street Pedestrian Crossing (R1-6 or R1-6a) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign. A 12 x 6-inch reduced size diagonal downward pointing arrow (W16-7P) plaque may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

- If an In-Street Pedestrian Crossing sign, an In-Street Schoolchildren Crossing sign, or a reduced size in-street School (S1-1) sign is placed in the roadway, the sign support shall comply with the mounting height and special mounting support requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12).
- The In-Street Pedestrian Crossing sign, the In-Street Schoolchildren Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School (S1-1) sign shall not be used at signalized locations.

Section 7B.13 School Bus Stop Ahead Sign (S3-1)

Guidance:

The School Bus Stop Ahead (S3-1) sign (see Figure 7B-1) should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible to road users for an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance.

Section 7B.14 SCHOOL BUS TURN AHEAD Sign (S3-2)

Option:

The SCHOOL BUS TURN AHEAD (S3-2) sign (see Figure 7B-1) may be installed in advance of locations where a school bus turns around on a roadway at a location not visible to approaching road users for a distance as determined by the "0" column under Condition B of Table 2C-4, and where there is no opportunity to relocate the school bus turn around to provide the distance provided in Table 2C-4.

Section 7B.15 School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3)

Standard:

- A School Speed Limit assembly (see Figure 7B-1) or a School Speed Limit (S5-1) sign (see Figure 7B-1) shall be used to indicate the speed limit where a reduced school speed limit zone has been established based upon an engineering study or where a reduced school speed limit is specified for such areas by statute. The School Speed Limit assembly or School Speed Limit sign shall be placed at or as near as practical to the point where the reduced school speed limit zone begins (see Figures 7B-3 and 7B-5).
- If a reduced school speed limit zone has been established, a School (S1-1) sign shall be installed in advance (see Table 2C-4 for advance placement guidelines) of the first School Speed Limit sign assembly or S5-1 sign that is encountered in each direction as traffic approaches the reduced school speed limit zone (see Figures 7B-3 and 7B-5).
- Where increased fines are imposed for traffic violations within a reduced school speed limit zone, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 2B-3) shall be installed as a supplement to the reduced school speed limit sign to notify road users.
- Except as provided in Paragraph 5, the downstream end of an authorized and posted reduced school speed limit zone shall be identified with an END SCHOOL SPEED LIMIT (S5-3) sign (see Figures 7B-1 and 7B-5). Option:
- If a reduced school speed limit zone ends at the same point as a higher fines zone, an END SCHOOL ZONE (S5-2) sign may be used instead of a combination of an END HIGHER FINES ZONE (R2-11) sign and an END SCHOOL SPEED LIMIT (S5-3) sign.
- A standard Speed Limit sign showing the speed limit for the section of highway that is downstream from the authorized and posted reduced school speed limit zone may be mounted on the same post above the END SCHOOL SPEED LIMIT (S5-3) sign or the END SCHOOL ZONE (S5-2) sign.

Guidance:

The beginning point of a reduced school speed limit zone should be at least 200 feet in advance of the school grounds, a school crossing, or other school related activities; however, this 200-foot distance should be increased if the reduced school speed limit is 30 mph or higher.

Sect. 7B.12 to 7B.15 December 2009

Standard:

The School Speed Limit assembly shall be either a fixed-message sign assembly or a changeable message sign.

The fixed-message School Speed Limit assembly shall consist of a top plaque (S4-3P) with the legend SCHOOL, a Speed Limit (R2-1) sign, and a bottom plaque (S4-1P, S4-2P, S4-4P, or S4-6P) indicating the specific periods of the day and/or days of the week that the special school speed limit is in effect (see Figure 7B-1).

Option:

10 Changeable message signs (see Chapter 2L and Section 6F.60) may be used to inform drivers of the school speed limit. If the sign is internally illuminated, it may have a white legend on a black background. Changeable message signs with flashing beacons may be used for situations where greater emphasis of the special school speed limit is needed.

Guidance:

- Even though it might not always be practical because of special features to make changeable message signs conform in all respects to the standards in this Manual for fixed-message signs, during the periods that the school speed limit is in effect, their basic shape, message, legend layout, and colors should comply with the standards for fixed-message signs.
- A confirmation light or device to indicate that the speed limit message is in operation should be considered for inclusion on the back of the changeable message sign.

Standard:

Fluorescent yellow-green pixels shall be used when the "SCHOOL" message is displayed on a changeable message sign for a school speed limit.

Option:

- 14 Changeable message signs may use blank-out messages or other methods in order to display the school speed limit only during the periods it applies.
- 15 Changeable message signs that display the speed of approaching drivers (see Section 2B.13) may be used in a school speed limit zone.
- A Speed Limit Sign Beacon (see Section 4L.04) also may be used, with a WHEN FLASHING legend, to identify the periods that the school speed limit is in effect.

Section 7B.16 Reduced School Speed Limit Ahead Sign (S4-5, S4-5a)

Guidance:

A Reduced School Speed Limit Ahead (S4-5, S4-5a) sign (see Figure 7B-1) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates that advance notice would be appropriate.

Standard:

- If used, the Reduced School Speed Limit Ahead sign shall be followed by a School Speed Limit sign or a School Speed Limit assembly.
- The speed limit displayed on the Reduced School Speed Limit Ahead sign shall be identical to the speed limit displayed on the subsequent School Speed Limit sign or School Speed Limit assembly.

Section 7B.17 Parking and Stopping Signs (R7 and R8 Series)

Option:

- Parking and stopping regulatory signs may be used to prevent parked or waiting vehicles from blocking pedestrians' views, and drivers' views of pedestrians, and to control vehicles as a part of the school traffic plan. Support:
- Parking signs and other signs governing the stopping and standing of vehicles in school areas cover a wide variety of regulations. Typical examples of regulations are as follows:
 - A. No Parking X:XX AM to X:XX PM School Days Only,
 - B. No Stopping X:XX AM to X:XX PM School Days Only,
 - C. XX Min Loading X:XX AM to X:XX PM School Days Only, and
 - D. No Standing X:XX AM to X:XX PM School Days Only.
- Sections 2B.46, 2B.47, and 2B.48 contain information regarding the signing of parking regulations in school zone areas.

December 2009 Sect. 7B.15 to 7B.17

Page 744 2009 Edition

CHAPTER 7C. MARKINGS

Section 7C.01 Functions and Limitations

Support:

- Markings have definite and important functions in a proper scheme of school area traffic control. In some cases, they are used to supplement the regulations or warnings provided by other devices, such as traffic signs or signals. In other instances, they are used alone and produce results that cannot be obtained by the use of any other device. In such cases they serve as an effective means of conveying certain regulations, guidance, and warnings that could not otherwise be made clearly understandable.
- Pavement markings have some potential limitations. They might be obscured by snow, might not be clearly visible when wet, and might not be durable when subjected to heavy traffic. In spite of these potential limitations, they have the advantage, under favorable conditions, of conveying warnings or information to the road user without diverting attention from the road.

Section 7C.02 Crosswalk Markings

Guidance:

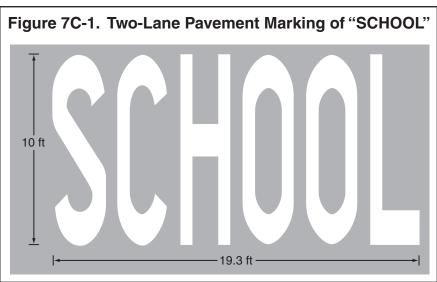
- Crosswalks should be marked at all intersections on established routes to a school where there is substantial conflict between motorists, bicyclists, and student movements; where students are encouraged to cross between intersections; where students would not otherwise recognize the proper place to cross; or where motorists or bicyclists might not expect students to cross (see Figure 7A-1).
- Crosswalk lines should not be used indiscriminately. An engineering study considering the factors described in Section 3B.18 should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign.
- Because non-intersection school crossings are generally unexpected by the road user, warning signs (see Sections 7B.11 and 7B.12) should be installed for all marked school crosswalks at non-intersection locations. Adequate visibility of students by approaching motorists and of approaching motorists by students should be provided by parking prohibitions or other appropriate measures.

 Support:
- Section 3B.18 contains provisions regarding the placement and design of crosswalks, and Section 3B.16 contains provisions regarding the placement and design of the stop lines and yield lines that are associated with them. Provisions regarding the curb markings that can be used to establish parking regulations on the approaches to crosswalks are contained in Section 3B.23.

Section 7C.03 Pavement Word, Symbol, and Arrow Markings

Option:

- If used, the SCHOOL word marking may extend to the width of two approach lanes (see Figure 7C-1). *Guidance:*
- *If the two-lane SCHOOL word marking is used, the letters should be 10 feet or more in height.*Support:
- os Section 3B.20 contains provisions regarding other word, symbol, and arrow pavement markings that can be used to guide, warn, or regulate traffic.



Sect. 7C.01 to 7C.03 December 2009

CHAPTER 7D. CROSSING SUPERVISION

Section 7D.01 Types of Crossing Supervision

Support:

- There are three types of school crossing supervision:
 - A. Adult control of pedestrians and vehicles by adult crossing guards,
 - B. Adult control of pedestrians and vehicles by uniformed law enforcement officers, and
 - C. Student and/or parent control of only pedestrians with student and/or parent patrols.
- Information regarding the organization, administration, and operation of a school safety patrol program is contained in the "AAA School Safety Patrol Operations Manual" (see Section 1A.11).

Section 7D.02 Adult Crossing Guards

Option:

Adult crossing guards may be used to provide gaps in traffic at school crossings where an engineering study has shown that adequate gaps need to be created (see Section 7A.03), and where authorized by law.

Section 7D.03 Qualifications of Adult Crossing Guards

Support:

High standards for selection of adult crossing guards are essential because they are responsible for the safety of and the efficient crossing of the street by schoolchildren within and in the immediate vicinity of school crosswalks.

Guidance:

- Adult crossing guards should possess the following minimum qualifications:
 - A. Average intelligence;
 - B. Good physical condition, including sight, hearing, and ability to move and maneuver quickly in order to avoid danger from errant vehicles;
 - C. Ability to control a STOP paddle effectively to provide approaching road users with a clear, fully direct view of the paddle's STOP message during the entire crossing movement;
 - D. Ability to communicate specific instructions clearly, firmly, and courteously;
 - E. Ability to recognize potentially dangerous traffic situations and warn and manage students in sufficient time to avoid injury.
 - F. Mental alertness;
 - G. Neat appearance;
 - H. Good character;
 - I. Dependability; and
 - *J.* An overall sense of responsibility for the safety of students.

Section 7D.04 Uniform of Adult Crossing Guards

Standard:

Law enforcement officers performing school crossing supervision and adult crossing guards shall wear high-visibility retroreflective safety apparel labeled as ANSI 107-2004 standard performance for Class 2 as described in Section 6E.02.

Section 7D.05 Operating Procedures for Adult Crossing Guards

Standard:

- Adult crossing guards shall not direct traffic in the usual law enforcement regulatory sense. In the control of traffic, they shall pick opportune times to create a sufficient gap in the traffic flow. At these times, they shall stand in the roadway to indicate that pedestrians are about to use or are using the crosswalk, and that all vehicular traffic must stop.
- Adult crossing guards shall use a STOP paddle. The STOP paddle shall be the primary hand-signaling device.
- The STOP (R1-1) paddle shall be an octagonal shape. The background of the STOP face shall be red with at least 6-inch series upper-case white letters and border. The paddle shall be at least 18 inches in size and have the word message STOP on both sides. The paddle shall be retroreflectorized or illuminated when used during hours of darkness.

December 2009 Sect. 7D.01 to 7D.05

Page 746 2009 Edition

Option:

- The STOP paddle may be modified to improve conspicuity by incorporating white or red flashing lights on both sides of the paddle. Among the types of flashing lights that may be used are individual LEDs or groups of LEDs.
- The white or red flashing lights or LEDs may be arranged in any of the following patterns:
 - A. Two white or red lights centered vertically above and below the STOP legend,
 - B. Two white or red lights centered horizontally on each side of the STOP legend,
 - C. One white or red light centered below the STOP legend,
 - D. A series of eight or more small white or red lights having a diameter of 1/4 inch or less along the outer edge of the paddle, arranged in an octagonal pattern at the eight corners of the STOP paddle (more than eight lights may be used only if the arrangement of the lights is such that it clearly conveys the octagonal shape of the STOP paddle), or
 - E. A series of white lights forming the shapes of the letters in the legend.

Standard:

If flashing lights are used on the STOP paddle, the flash rate shall be at least 50, but no more than 60, flash periods per minute.

Sect. 7D.05 December 2009

Section 4D.15 Size, Number, and Location of Signal Faces by Approach

- 1. All lenses shall be 12 inches.
- 2. All intersection approaches include at least one overhead signal. Deviation from this amendment is only allowed when the provision of overhead indications is either physically not possible or cost prohibitive.

Section 4E.03 Application of Pedestrian Signal Heads

Pedestrian Signal Heads shall only be used with crosswalks connecting to viable sidewalks meeting all the requirements of ADA. Viable sidewalks are defined as part of a municipal network of sidewalks or sidewalks connecting to major pedestrian destinations.

Section 4E.07 Countdown Pedestrian Signals

It is the opinion of the Department that Countdown Pedestrian Signals are not viewed to provide any useful information to either the pedestrian or the motorist. The information is in direct opposition to the intent of the traffic control device (Flashing Don't Walk). Consequently, this section of the NMUTCD does not apply on Massachusetts State Highways and any projects that involve state funds.

SECTION 7G - OFFICIAL STANDARDS FOR SCHOOL ZONES

As required by Chapter 90, Section 17 of the MGL (Tercentenary Edition as Amended)

The Department hereby adopts the following standards for the establishment of school zones to provide increased protection for school children on highways in the vicinity of schools:

Any variance from the requirements of these Standards without the written approval of the Department shall constitute the establishment of a non-standard School Zone and shall render the provisions of Chapter 90, section 17 inapplicable insofar as they refer to the speed of vehicles in School Zones.

7G-1 <u>SCHOOL ZONE DEFINED</u>

A School Zone as referred to in Chapter 90, Section 17 shall only be construed to be that section of a way which abuts the grounds of a school and is posted and marked in accordance with these Department Standards to indicate the applicability of the statutory speed limits of twenty miles per hour for all vehicles in accordance with the terms of the permit for the Zone.

7G-2 WARRANTS FOR SCHOOL ZONES

The following **minimum warrants** are specified for the establishment of a School Zone.

The school property abuts the public right of way within the limits of the proposed zone area.

School Children have direct access to the street or roadway from the school property.

The zone must contain a marked crosswalk.

The school must involve one or more grades below Grade 9.

A School Zone is **not warranted**:

- a. When children are not required to cross the street on foot within the limits of the proposed zone area and sidewalks are provided.
- b. Where abutting school property is fenced or the crosswalk has been signalized except in the cases where investigation shows that there is no conflict between the signal indication and the school zone speed limit sign.

7G-3 SCHOOL ZONE SPEED LIMIT SIGNS

The flashing sign is available in two variations. Specifications are shown in Section 7G-9. The flashers and the numeral shall be energized **only during the hours when the 20 M.P.H. speed limit is legally effective**. A non-illuminated school zone speed limit sign is also acceptable, and must be accompanied by a supplementary sign indicating the hours the 20 M.P.H. limit is in effect, or "When Children are Present".

7G-4 SCHOOL ZONE SPEED LIMIT SIGN USE

The School Zone Speed Limit Sign may be used at all locations to establish legal school zone speed limits of 20 MPH where the school building or the grounds thereof abuts the street or highway. It shall not be used at any other location.

The School Zone shall not begin more than 300 feet in advance of a point where the projected nearer line of the School Building intersects the abutting highway. The sign should be placed within 50 feet of the limits of the school zone, facing traffic entering the zone. The sign may erected on the shoulder, or it may be erected overhead.

The School Zone Speed Limit Sign should be erected over the roadway where curves, roadside development and other physical conditions do not permit at least 500 feet of advance sight distance to a side-mounted sign. Over the road mounting is recommended for all divided highways and highways of four or more lanes.

7G-5 <u>SCHOOL ZONE SIGNS ON STATE HIGHWAYS</u>

It is the policy of the department to install standard warning signs at all approaches to potentially hazardous locations. In the case of a school abutting a State Highway, the Department will, by permit, authorize the establishment of School Zones at the request of the municipality wherein the highway lies. All costs for the establishment and maintenance of a school zone speed limit on State Highway shall be borne by the municipality. A permit for each School Zone will be issued to the municipality setting forth the applicable terms for the zone operation.

7G-6 APPROACH WARNING SIGNS

The *School Advance Sign* (S1-1) as provided in Section 7B.08 of the 2003 MUTCD shall be supplemented by a tab bearing the legend "School Zone Ahead" and shall be erected in advance of the beginning of each school Zone to notify motorists of their approach to School Zone. (See 7G-8).

7G-7 WORD AND SYMBOL MARKINGS (See Section 7C.06)

The word "SCHOOL" shall be placed at the beginning of the school zone facing approaching traffic. It shall extend across the full width of the approach lanes. The word "SCHOOL" shall be wholly on the right half of the roadway.

On approaches with two lanes a height of ten feet shall be used. On approaches with only one lane a height of six feet shall be used.

7G-8 SCHOOL ZONES WITHIN SPEED ZONES

Where a school is within the limits of an authorized speed zone, the beginning of the speed zone shall be not less than 850 feet in advance of the school grounds in rural areas; 500 feet, or one block, whichever is smaller, in urban areas. There shall be no speed limit sign, other then a School Zone Limit 20 between the advance School Warning sign and the School Zone. A speed limit sign, to mark an authorized speed zone, shall be placed just beyond the end limit of the school zone facing traffic which has passed the school property.

When a School Zone is located on a highway not legally speed zoned the end limit of the zone shall be designated by a standard rectangular advisory sign with the legend "END SCHOOL ZONE"

7G-9 SIGN SPECIFICATIONS

A. SCHOOL ZONE AHEAD TAB

1. Color: Yellow background with black legend and border

2. Shape: Rectagonal

3. Size: Minimum 24" x 18"

B. SCHOOL ZONE SPEED LIMIT SIGNS

1. COLOR:

- a). "SCHOOL" tab portion Yellow background with black legend and border
- b). SPEED LIMIT portion black legend and border on white background with two yellow lenses separated by a lens which shows red numeral 20 only when energized.

2. SHAPE:

Rectangular, ground mount - long axis vertical. Overhead mount - long axis horizontal.

3. SIZE:

- a). Ground mount sign minimum size 24" x 48". Overhead mount sign minimum size 72" x 60".
- b). Ground mount legend: "School" 4" series C, "Speed Limit" 4" series B, "When Flashing" 4" series B. Overhead sign panel specifications available upon request.
- 4. LENS: Size 8" minimum

Color – yellow

5. NUMERAL 20: Size not less than 6"

Color: shall be as set forth for "Don't Walk" signal in Standard Specifications of MassHighway.

6. HEIGHT: Ground mount sign no less than 7 feet to bottom of sign. Overhead mount sign minimum clearance of 16 feet over roadway.

C. END SCHOOL ZONE

- 1. USE: To be installed only where there is no legal speed zone beginning at the end of school zone.
- 2. COLOR: White with black legend and border.
- 3. SHAPE: Rectangular, long axis vertical.
- 4. SIZE: 18" x 24" minimum.

D. LATERAL CLEARANCE

A clearance of 1 foot from the curb line is permissible where sidewalk width is limited or where existing poles are close to the curb. Otherwise, where a raised curb, guardrail or paved shoulder is present, a sign should be ordinarily placed with its nearest edge at least two feet outsider such curb line, guardrail or paved shoulder.

7G-10 PROCEDURE FOR APPROVAL

On State Highways, approval of the use of school zone speed limit signs will be granted by permit from the Department to a municipality upon written application setting forth the proposed operation of the sign.

7G-11 PERMISSIBLE TIMES OF OPERATION

School zones signs may be permitted to flash and show the 20 mph speed limit only during the school noon hour, school recess or during those periods when children are going to or leaving school during opening and closing hours.

